



# FANTASTIC **ORIGAMI** FLYING CREATURES



24 AMAZING PAPER MODELS



HISAO FUKUI

TUTTLE



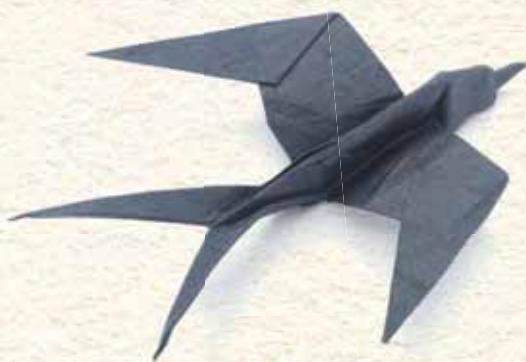
Create your own magnificent collection of winged creatures—from an elegant Swan to a majestic Eagle and a fanciful flying Phoenix!

Famous Japanese origami designer HISAO FUKUI shows you how to make 24 incredibly realistic and dramatic models including flying insects, flying dinosaurs—even an undulating flying Dragon! The easy-to-follow step-by-step instructions in this book enable you to make paper models which range in difficulty from intermediate to complex.

Here are some of the unique models you can fold by following the instructions in this book:

- The Swan—Multi-layered wings and body give this familiar origami model a major three-dimensional upgrade
- The Crane—Very different from the traditional crane model, this one rests on its built-in platform that doubles as a storage box
- Peacocks—One with tail feathers stowed neatly behind it and another with its tail fan proudly displayed
- The Swallow—with its distinctive split tail on display in a kinetic diving pose
- The Crested Kingfisher—Whose artfully modeled eyes are on the lookout for its next meal
- Flying Beetles—A Horned Beetle with unfurled wings and a Rhinoceros Beetle with a spiky head
- The Dragonfly—A very challenging model, but the spectacular results are well worth the effort!
- And many more!







創作折り紙作家  
リアル折り紙の会 代表  
福井久男

# FANTASTIC **ORIGAMI** FLYING CREATURES



24 AMAZING PAPER MODELS



HISAO FUKUI

TUTTLE Publishing  
Tokyo | Rutland, Vermont | Singapore



## PART 1: BIRDS

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Mandarin Duck ▶ 14

difficulty: ★★★★★



Swan ▶ 16

difficulty: ★★★★★



Crane Box ▶ 18

difficulty: ★★★★★



Swallow ▶ 20

difficulty: ★★★★★



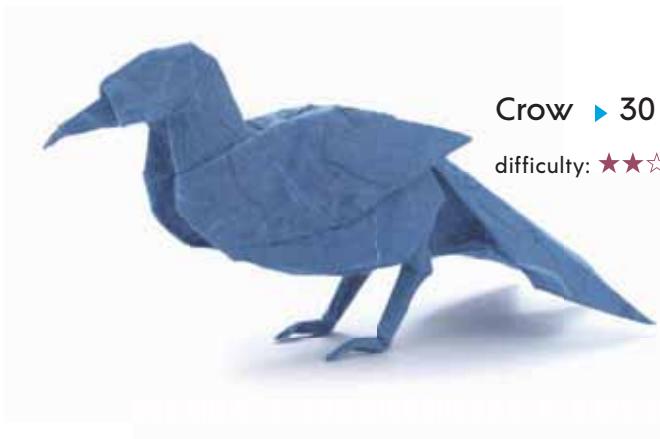
Peacock with Train ▶ 22

difficulty: ★★★★★



Peacock with Tail Fan ▶ 26

difficulty: ★★★★★



Crow ▶ 30

difficulty: ★★★☆☆



Flamingo ▶ 34

difficulty: ★★★★☆



Sparrow ▶ 40

difficulty: ★★★☆☆



Common Gull ▶ 44

difficulty: ★★★★☆



Crested Kingfisher ▶ 48

difficulty: ★★★★☆



Eagle ▶ 54

difficulty: ★★★★★



## PART 2: INSECTS



Locust ▶ 60

difficulty: ★★★★★★



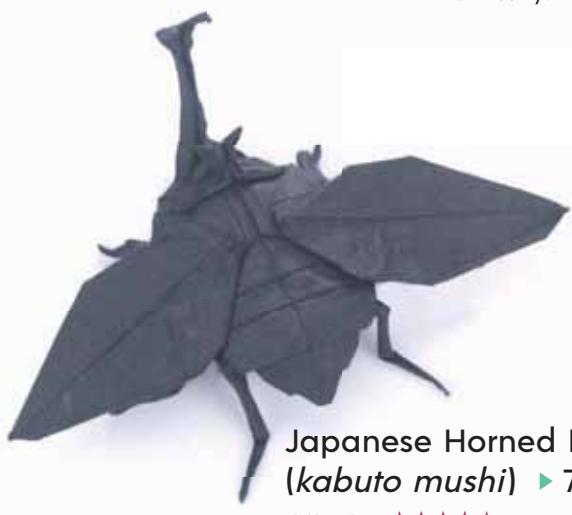
Butterfly ▶ 64

difficulty: ★★★★★★



Stink Bug ▶ 67

difficulty: ★★★★★★



Japanese Horned Beetle  
(*kabuto mushi*) ▶ 76

difficulty: ★★★★★★



Cicada ▶ 70

difficulty: ★★★★★★



Dragonfly ▶ 84

difficulty: ★★★★★★



Five-horned  
Rhinoceros Beetle ▶ 79

difficulty: ★★★★★★

## PART 3: DINOSAURS AND MYTHICAL CREATURES



Pteranodon ▶ 90

difficulty: ★★★★★



Archaeopteryx ▶ 94

difficulty: ★★★★☆



Chinese Phoenix  
(*fenghuang*) ▶ 106

difficulty: ★★★★★



Chinese Bird-lizard  
(*sinornithosaurus*) ▶ 98

difficulty: ★★★★★



Chinese Dragon ▶ 102

difficulty: ★★★★★

# ► INTRODUCTION

After the pleasant surprise of a strong positive reaction to my first book, and the confirmation that interest in lifelike origami models is deep and wide, my publisher approached me to write another book, and *Fantastic Origami Flying Creatures* is the result!

I chose the creatures of the sky as the theme for this book, but I also have two other books in Japanese that focus primarily on land animals, as well as a book on sea creatures, which will be published in English by Tuttle Publishing in the fall of 2020.

Folding lifelike origami models is an art. The paper must be folded many times and in surprising ways to create a figure that closely resembles the look of animals, dinosaurs, insects, and so on.

Although folding these lifelike forms may seem daunting at first glance, each model begins with a stage called "basic folding,"\* which simplifies the operation. After the basic folding is complete, I provide step-by-step instructions on how to produce more realistic and complex forms. The basic folding itself can be time consuming, but it's usually not difficult—people of practically any age or skill level can accomplish it. After completing the basic folding stage, you don't necessarily need to follow the rest of the steps exactly as specified. You can change small details such as the shape of the wings, position of the head, etc. to taste to make your origami unique.

What sets lifelike origami apart from other simpler forms is that the finished products are three-dimensional and have many curved surfaces. You will often need to gently shape the model as a finishing touch to make the origami look just right. Sometimes, it may even take a few days to make small adjustments. Use the photos in this book as a reference for your adjustments. I recommend applying glue to your models so they hold their shape over long periods. See page 12 for details. I recommend the challenge of using glue to anyone who is beyond the beginner level. However, first-time folders are welcome to try it as well. I recommend practicing by folding the entire model at least once before deciding to try one with glue applied—when the glue sets, there's no going back to fix earlier mistakes!

Generally speaking, Japanese paper (*washi*) will produce the best results for the models described in this book. It is pliable, natural-feeling, not prone to tearing, and it takes well to being moistened or glued. But in certain instances, commercially available origami paper (*kami*) is preferable—particularly for use when practicing. When using this sort of paper, I recommend using the thinnest paper you can find.

This book features a wide range of origami models, from relatively easy to quite challenging in terms of difficulty. To assist beginners, I've included detailed views for the more difficult procedures. If a given step seems confusing, look ahead to the next diagram for hints.

I hope you enjoy *Fantastic Origami Flying Creatures*!

Fukui Hisao

## Note

\*Basic Folding: In this book, each model has a stage called "basic folding." In this stage, you should follow the instructions exactly. However, after this stage is complete, feel free to make minor adjustments, such as slightly adjusting folding angles and distances depending on your taste. The variations in the shape of the final product is part of the charm of lifelike origami.



# A GUIDE TO THE FOLDING SYMBOLS

Fold inward along the line: valley fold

The line ends up on the inside of the fold, thus it's also called a "valley line."

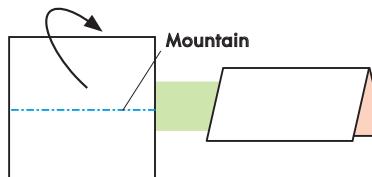
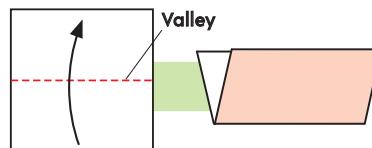
In the diagrams, I denote these lines as "valley."

Fold outward along the line: mountain fold

The line ends up on the outside of the fold, thus it's also called a "mountain line."

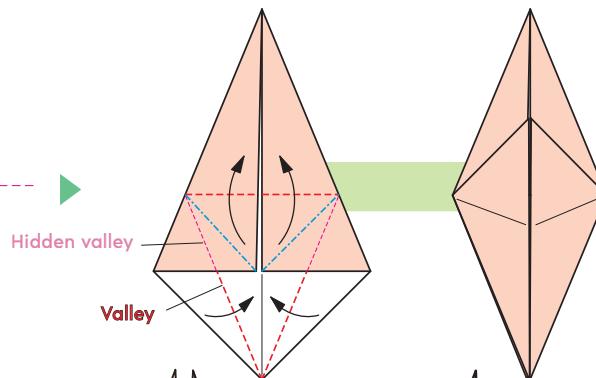
The same result can be achieved by making a valley fold on the opposite side.

In the diagrams, I denote these lines as "mountain."



Inward hidden fold: hidden valley fold

A valley fold hidden under the paper. It is denoted in the diagrams as "hidden valley."

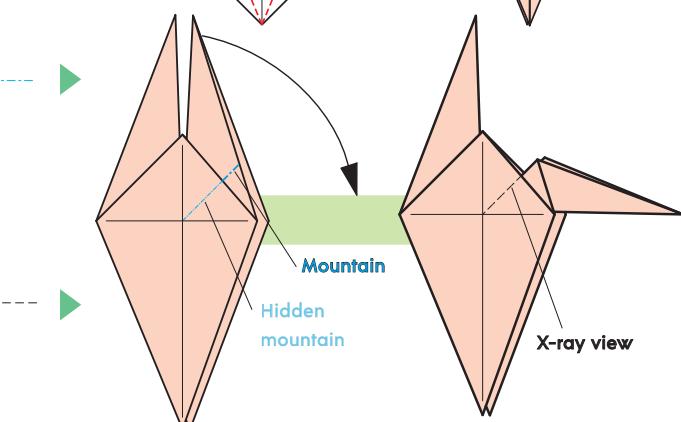


Outward hidden fold: hidden mountain fold

A mountain fold in which a part is hidden under a fold. It is denoted in the diagrams as "hidden mountain."

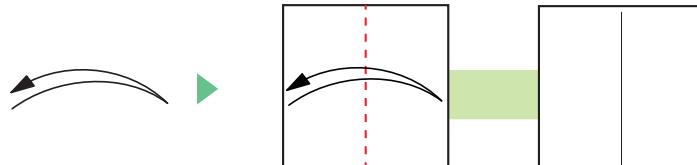
Position of the hidden part: x-ray view

This line shows the position of an inner part hidden by other folds.



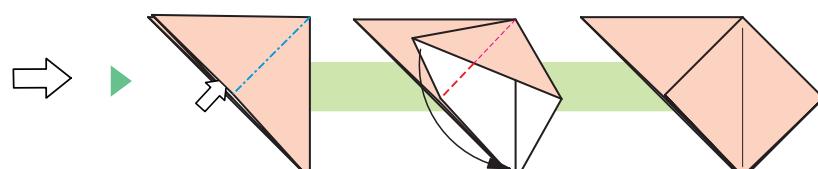
Fold and unfold

Fold along the line and return, leaving a crease.



Squash fold

Spread from the space indicated by the arrow and fold again.



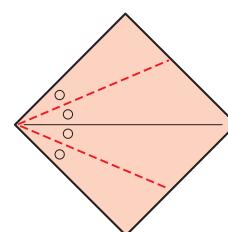
Pull out the paper



Pull and spread the paper



Divide the paper equally



Turn the paper over

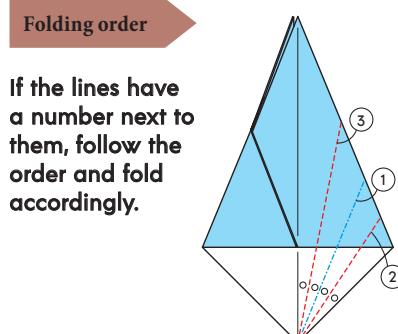
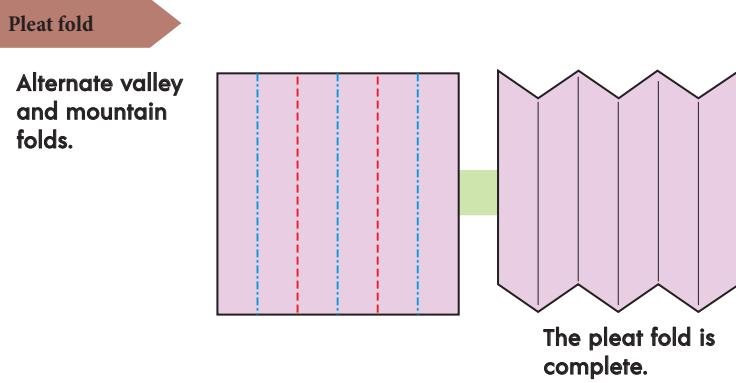
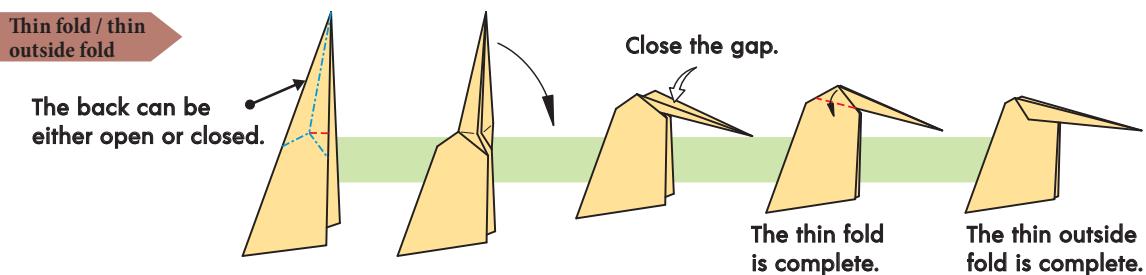
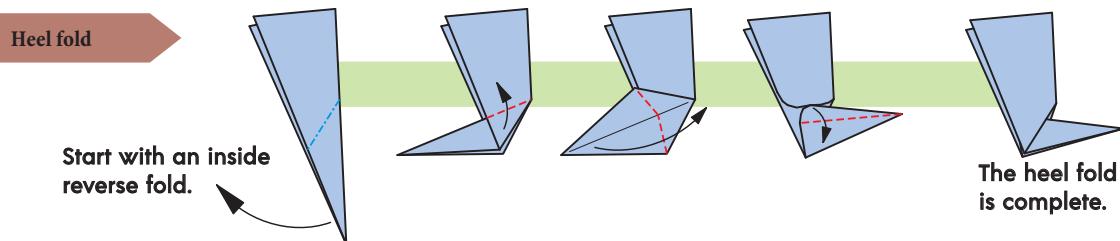
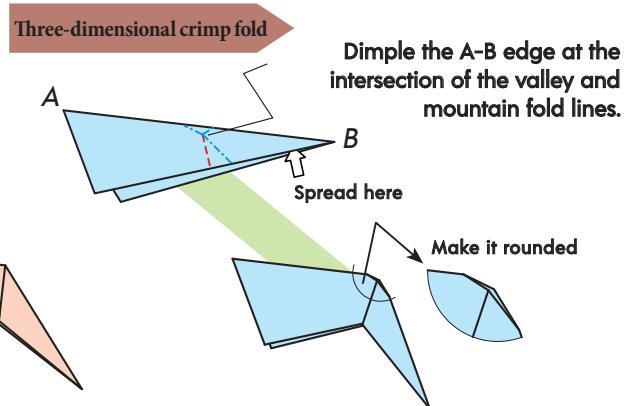
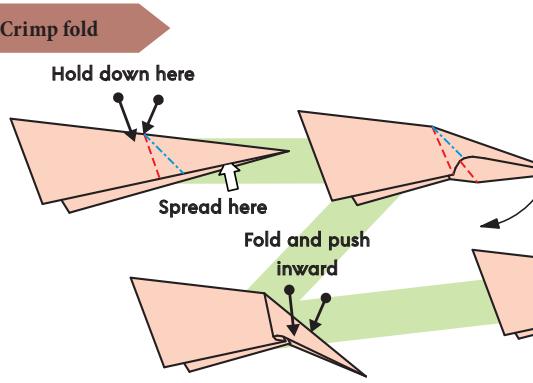
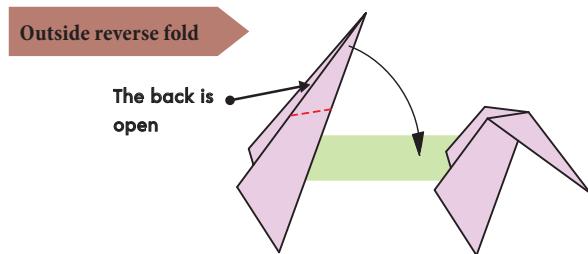
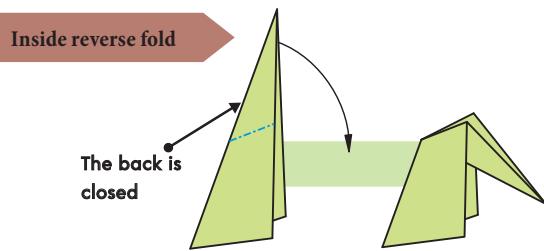


Zoom in



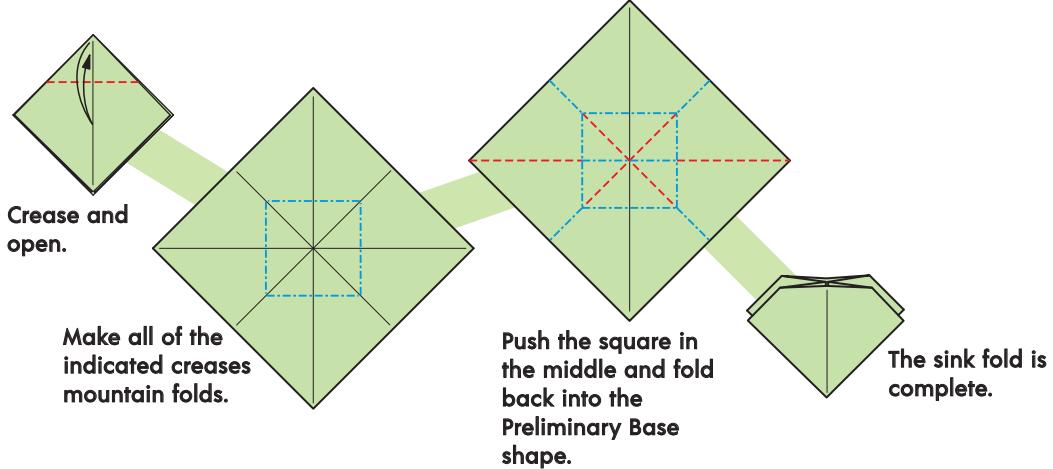


## SPECIALIZED FOLDING PROCEDURES

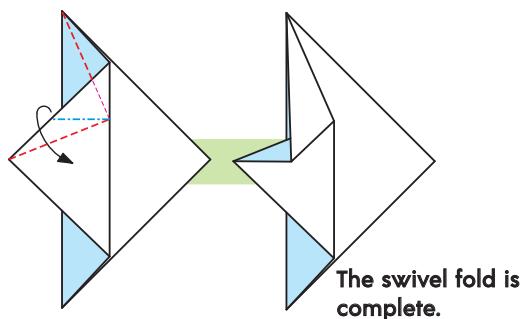


## Sink fold

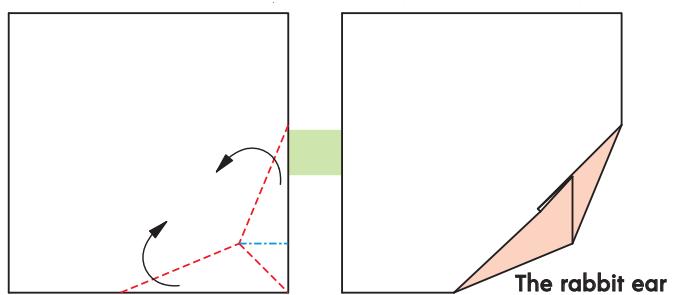
※ The Preliminary Base (Page 10) is used for this example.



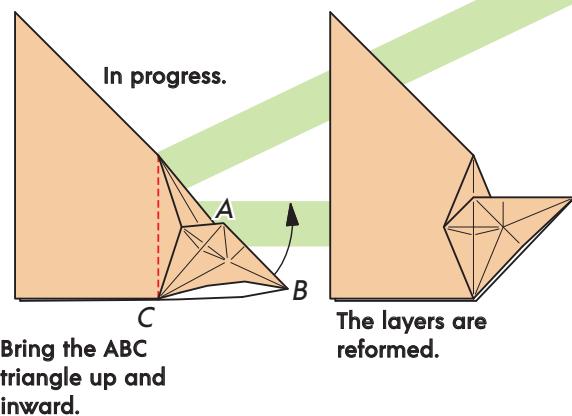
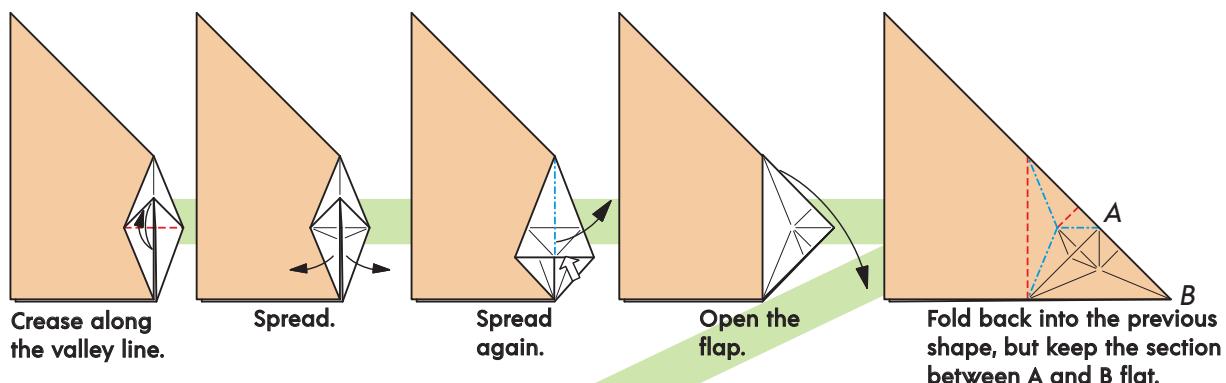
### Swivel fold



## Rabbit ear



### Wrap and reform layers



※ In the book,  
layer  
reforming is  
indicated with  
these symbols.



# ORIGAMI BASES

**Preliminary Base**

- 1
- 2
- 3
- 4
- 5
- 6

Squash fold.

The Preliminary Base is complete.

**Crane Diamond Base**

- 1
- 2
- 3

Start from the Preliminary Base. Raise the top layer, and squash fold both sides (this is called a *petal fold*).

Petal fold in progress.

The Crane Base is complete.

**Bird Base**

- 1
- 2

Turn the Crane Diamond Base over and petal fold.

The Bird Base is complete.

**Frog Base**

- 1
- 2
- 3
- 4
- 5
- 6
- 7

Squash fold starting from the Preliminary Base.

In progress.

Repeat on the other 3 points.

In progress.

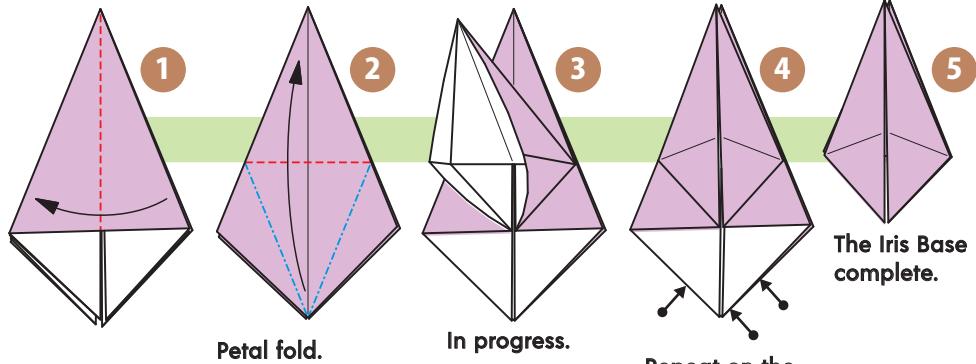
Repeat for the other 3 points.

Crease along the lines. Then, raise the top layer and squash fold the sides.

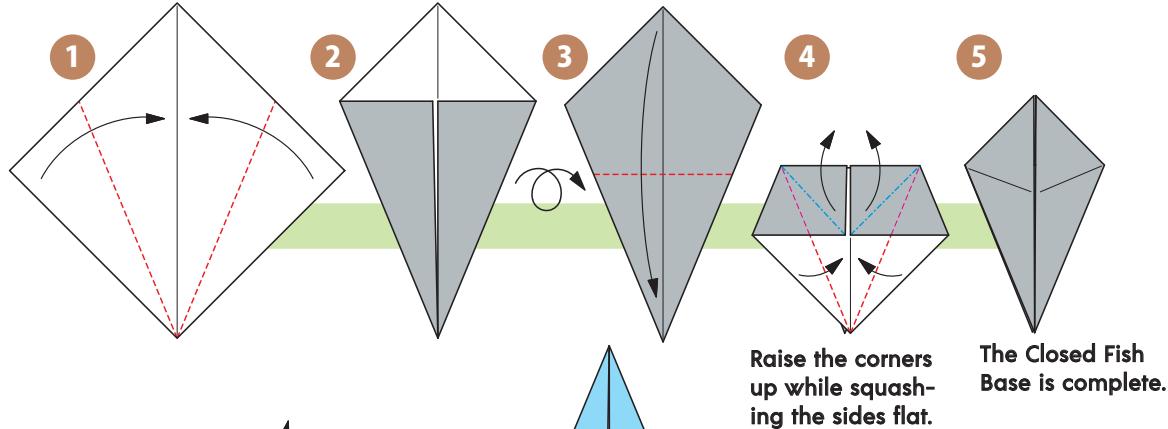
The Frog Base is complete. Steps 5 to 7 are called a "petal fold."

### Iris Base

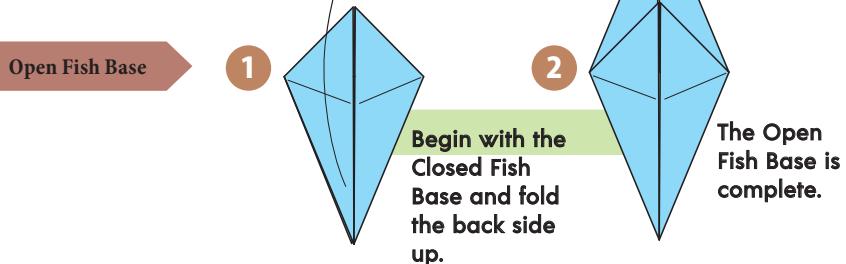
Start from step ④ of the Frog Base, and swing over one layer. Repeat on the other side.



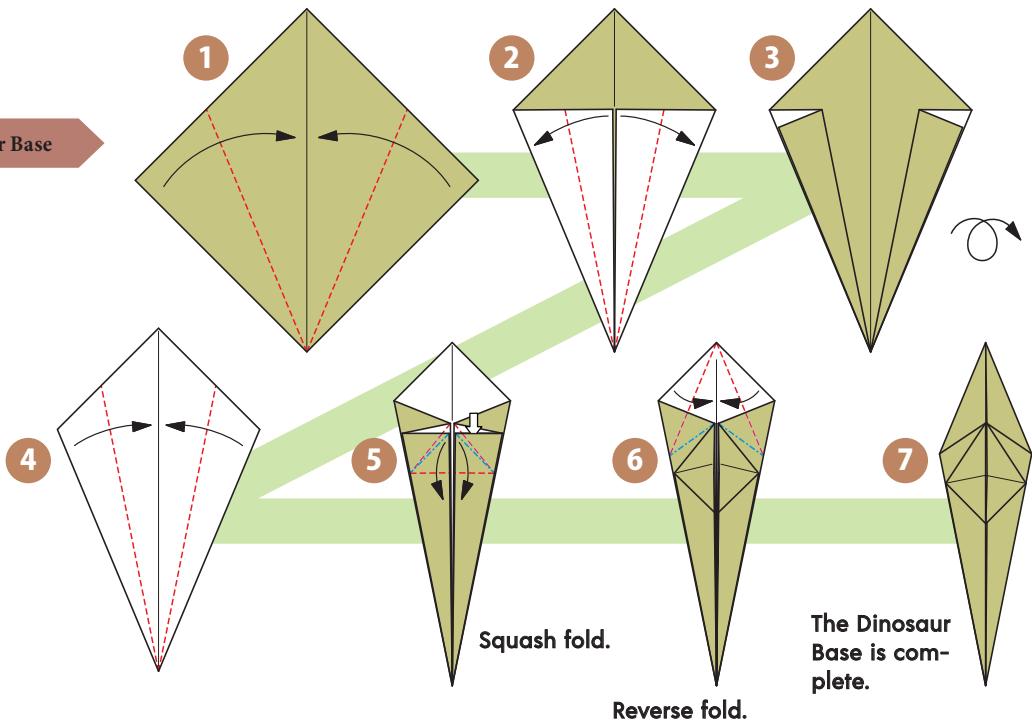
### Closed Fish Base

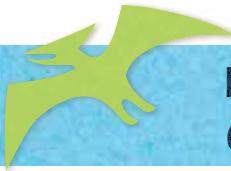


### Open Fish Base



### Dinosaur Base





# HOW TO MAKE LIFELIKE ORIGAMI (USING GLUE)

## About Using Glue

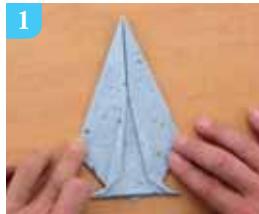
One of the keys to making lifelike origami is using glue to affect and set the final form. Despite being challenging to do correctly, the finished product will be more realistic and beautiful, as well as strong and durable—so I recommend that you give it a try!

Glue can either be added after the folding is complete or applied incrementally as you fold the origami. (I have added indications in the project instructions for when glue can be applied incrementally). Apply the glue (use slightly diluted craft glue) at the indicated points on the back side of the paper. After the folding is done, add more glue to each fold. Spread glue evenly to bind loose flaps together. However, if there's any sinking or squashing to be done after folding the basic shape, add glue to those parts last (after the sinking or squashing has been accomplished).

If you accidentally put glue in the wrong place, simply wipe it off. Even if it has dried, poorly placed glue can be softened and wiped away after a few minutes by painting the area with a moistened brush.



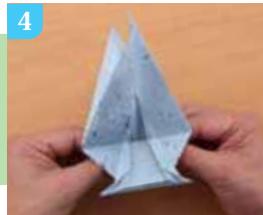
To prepare the glue solution, slightly dilute some craft glue with water. For application, I suggest you use a 10 mm brush. Also prepare a small water container and a piece of cloth to clean and wipe the brush.



Follow the project steps until the text "Start applying glue" is annotated. I show the Pteranodon (page 90) in this example.



While being mindful of the creases, apply glue to the correct points on the inside of the model.



Fold back to the previous shape.



While folding back to the previous shape, apply more glue. Remember to only apply glue where necessary.



Keep folding back into shape and applying glue until done.



Follow the instructions and keep folding.



While proceeding, apply more glue when the opportunities arise.



Apply glue in tight locations as well, like the back of the head in this case.



After the folding is done, mold the paper into more natural, realistic positions with your fingers.

▼ Glue has been applied



▲ No glue used

## Note

Applying glue, while being a very important element in folding lifelike origami, is completely optional. Even just folding is plenty of fun.

# ABOUT THE PAPER

## Paper Types and Sizes

For each model, I specifically indicate the type and size of paper that you should use. All of the origami in this book calls for *washi* (Japanese paper, see photo on the right), which has a luxurious weight and texture. There are various types of washi which are easy to fold into several layers without too much bulk. In order to produce more beautiful and realistic origami, I recommend using traditional washi with the appropriate strength and stiffness. For applying glue, as presented on the previous page, washi is much preferred over standard *kami* origami paper.

Beginners and people who just want to try lifelike origami for fun can, of course, use standard origami paper.

For standard origami paper, I generally advise using large sheets (at least 7" x 7" / 18 cm x 18 cm or larger).



## Preparing the Paper

If you use washi, you can have it cut to size at specialty stores. However, I prefer to cut the washi myself from a large sheet (36" x 24" / 90 cm x 60 cm).

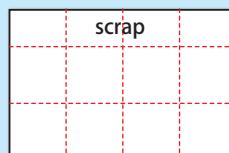
The size and shape of the sheets changes depending on the folding method used when cutting the large sheet. It can either be cut into 6 or 8 sheets. (See the diagrams at right.)

Once cut to size, prepare multiple Preliminary Bases in advance so they are handy for spur-of-the-moment folding.

## Examples of folding methods for cutting



▲ 6-sheet fold



▲ 8-sheet fold



Fold the large sheet of washi. (in this example, it's an 8-sheet fold.)



Cut along the creases with a paper knife and separate.



The separated sheets. With an 8-sheet fold, there will be some scrap.



Squares cut from the edges will need to be trimmed. Fold them into a triangle.



Fold again into a smaller triangle.



Use a craft knife to cut along the long side, in order to turn it into an isosceles triangle.



Only fold the upper sheet in a triangle shape. If the corners match perfectly, the cut was successful.



From there, just fold into a Preliminary Base, and you're done.

## How to Make Double-Sided Paper

To display a different color on each side, you can use spray adhesive on two different sheets and glue them together, as I show on the right. Use the adhesive in a well-ventilated area and protect the area underneath the washi sheets with newspaper or something similar.



With the back of the paper facing up, spray evenly with adhesive.



Adhere the second sheet to the first, smoothing it to ensure complete contact.



Complete. You can now cut the double-sided sheet into any size and shape you wish.



► Difficulty Rank: ★★★★★

## MANDARIN DUCK

★ Type of paper:

Washi (floral pattern outline—double sided)  
8½ x 8½ inch (21 x 21 cm)  
1 sheet



### Tips for folding

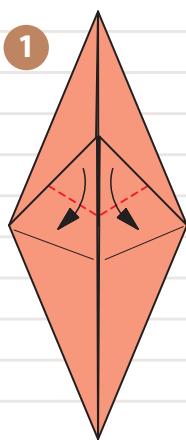
This model starts from a simple base; the Open Fish Base. However, there are many *approximate folds*.<sup>\*</sup> To avoid getting lost, I suggest you carefully compare your progress to the shapes in the illustrations. Because the folding process is short, it's also okay to use relatively thick washi. I suggest using paper with a floral pattern like the one in the photo.

To make the model look more duck-like, you can round the top of the head and the body corners by shaping them with your fingers (step 13). Also, curl the wing tips forward, and slightly spread open the body at the bottom to make it look three-dimensional and allow the piece to stand on its own.

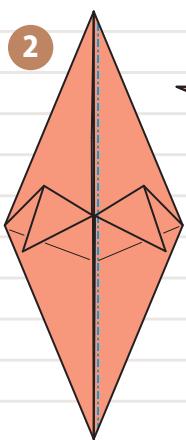
\*Approximate fold:

The folding line is undefined by landmarks and left to personal taste. For example, some people fold the duck beak to be long, while others prefer it to be shorter.

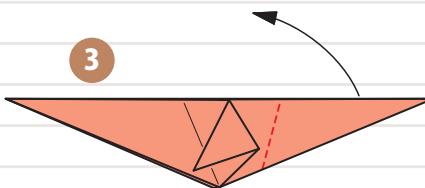
## Start from the Open Fish Base (page 11)



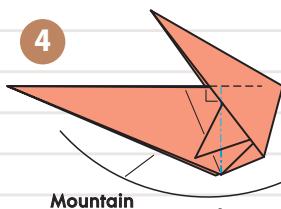
Fold the base  
Start applying glue



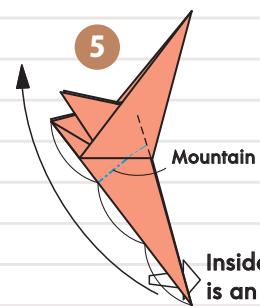
Mountain fold, and  
then rotate the paper.



Outside reverse fold. This is  
an approximate fold.

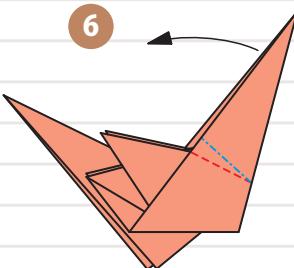


Mountain  
Inside reverse fold.  
Rotate the paper.

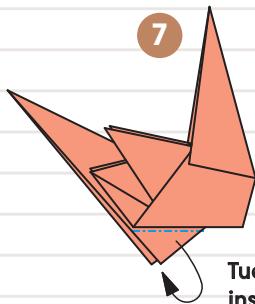


Mountain  
Inside reverse fold. This  
is an approximate fold.

Crimp fold.

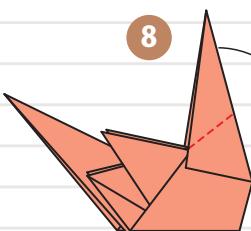


6

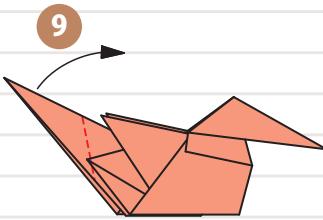


7

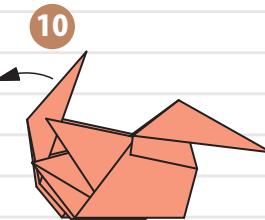
Tuck this part  
inside. Repeat  
behind as well.



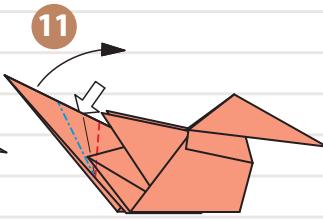
8  
Outside reverse  
fold.



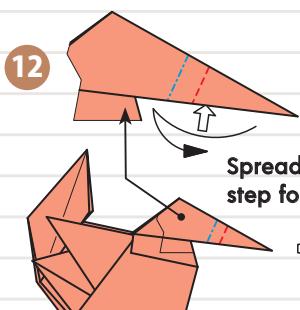
9  
Outside reverse  
fold.



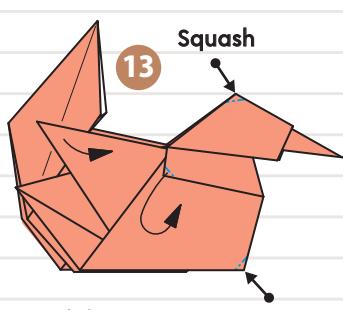
10  
Return to step 9.



11  
Pull out the inner layers  
while reforming the  
outside reverse fold.



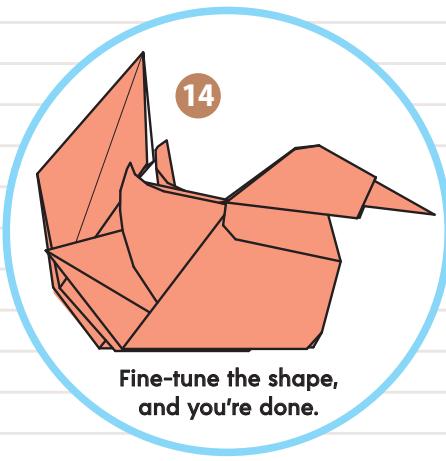
12  
Spread and  
step fold.



13  
Round the wing  
tips on both sides.

Squash

Squash



14  
Fine-tune the shape,  
and you're done.



► Difficulty Rank: ★☆☆☆☆

## SWAN

★ Type of paper:

Washi (light gold a.k.a. Kikai—snow white)  
8½ x 8½ inch (21 x 21 cm)  
1 sheet

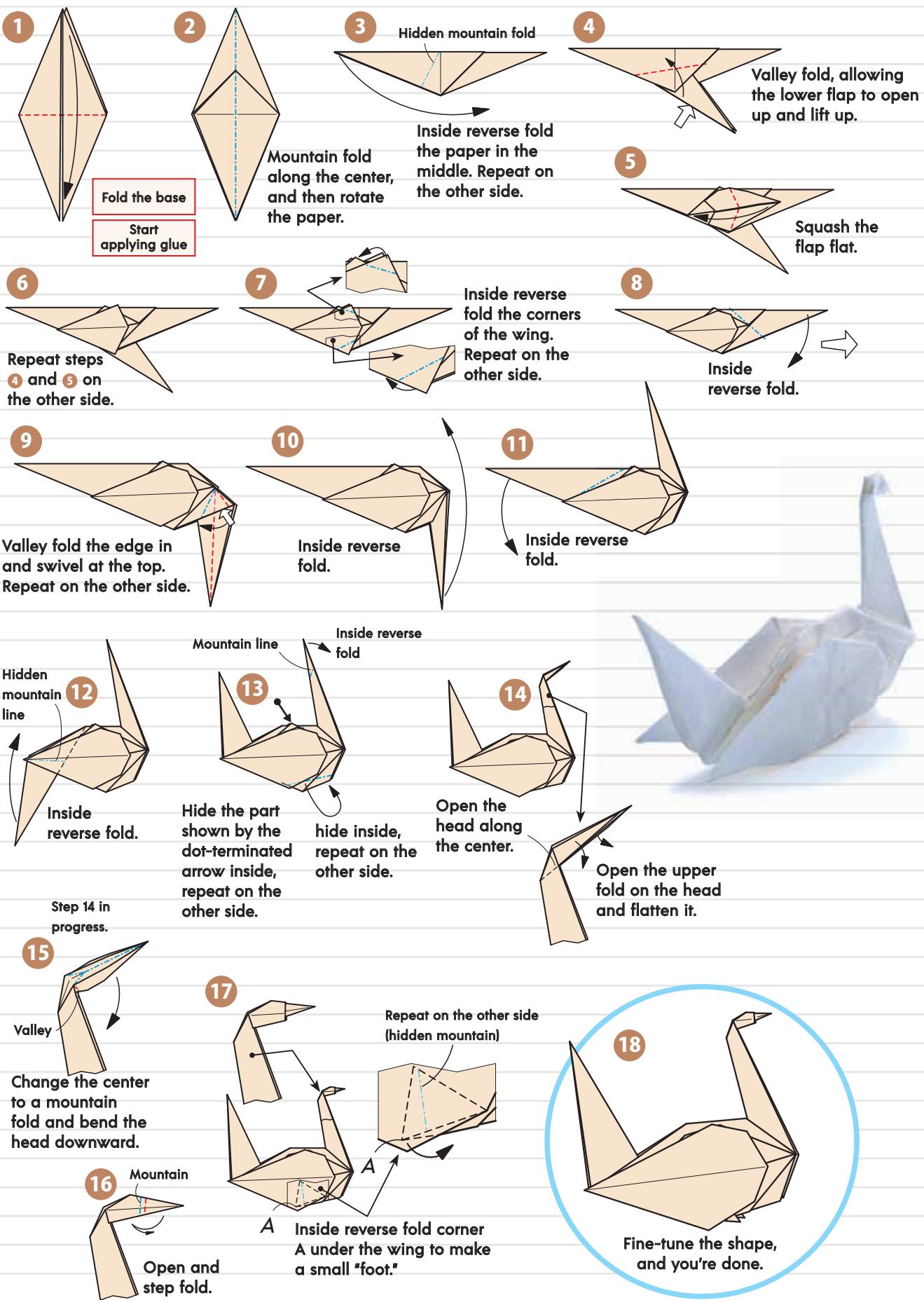


### Tips for folding

This model starts from the Bird Base. For the wings, I do an approximate fold (page 14), so I suggest you carefully compare your progress to the shapes in the illustrations. Steps 13 to 17 describe the basic process of folding the head for most origami birds, so definitely work to master these steps. If you are applying glue, it's better to save the head for last, because you need to spread the paper of the head in step 14. The inside reverse fold in step 17 can be omitted. For good balance, orient the head downward in a pleasing way. It also looks more natural to extend the tail out from the body at an angle (steps 11-12).



## Start from the Bird Base (page 10)





► Difficulty: ★★★☆☆

## CRANE BOX

★ Type of paper:

Washi

8½ x 8½ inch (21 x 21 cm)

1 sheet



### Tips for folding

This model is an homage to the origami crane, one of the most representative traditional origami models. The pedestal is made in step 3. If you're planning to put something inside the box, you should apply glue to keep things from coming undone. Regarding the inside reverse fold in step 8, I recommend folding to the point where the flaps bisect the edge of the wing in step 9.

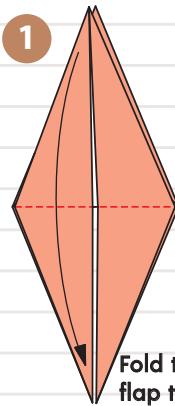
I like to use this model as a business-card holder at exhibitions.

In the case of the open-wing box variant, remember to not apply glue until you spread the box.

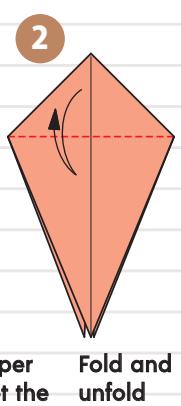
The box is good for putting candy or other small items inside, and can be used for holiday celebrations if you use colorful washi. Use glue to set the shape so the model doesn't relax and become warped over time.



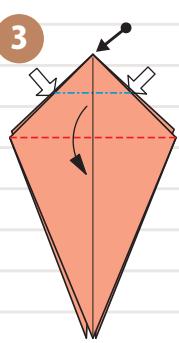
## Start from the Bird Base (page 10)



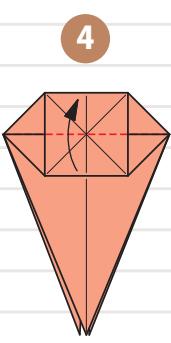
**1**  
Fold the upper flap to meet the bottom point. Repeat on the other side.



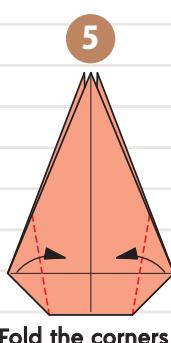
**2**  
Fold and unfold along the valley line.



**3**  
Spread open the pocket, and then push down to squash the top point.

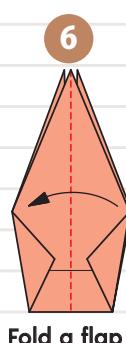


**4**  
Fold up a flap, and then rotate the paper.

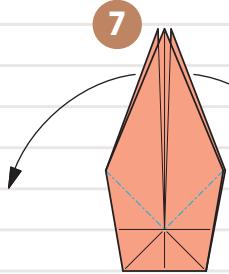


**5**  
Fold the corners in. Repeat behind.

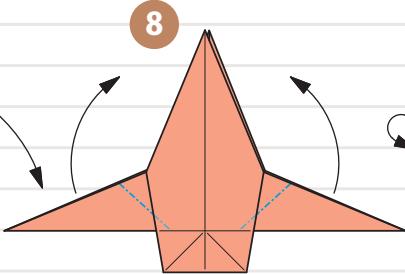
End of the basic folding



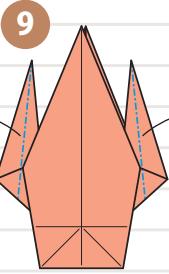
**6**  
Fold a flap over at each side. The hidden corners will squash flat.



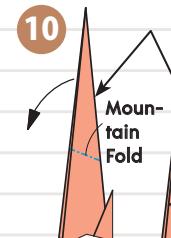
Inside reverse fold.



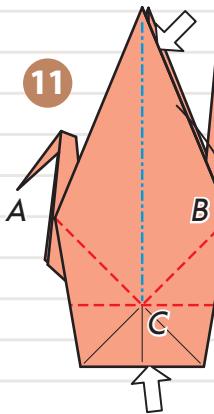
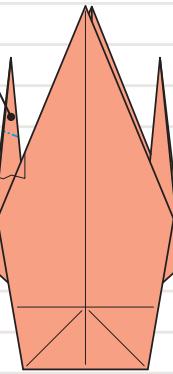
Inside reverse fold.



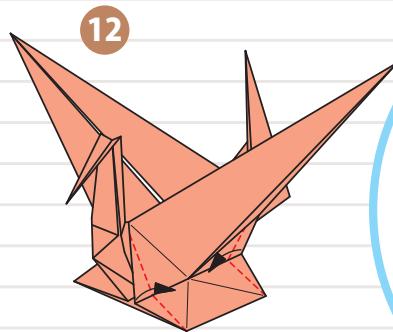
**9**  
Mountain fold. Repeat on the back.



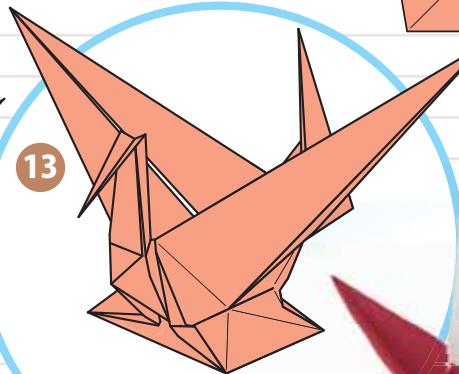
**10**  
Mountain Fold  
Inside reverse fold.



**11**  
Open the wings from lines A-C and B-C, and then flatten the bottom of the origami. Repeat on the other side.



**12**  
Reinforce the structure by folding in these 4 locations (including the back side, which is hidden).

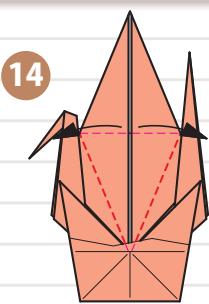


**13**  
Fine-tune, the shape, and you're done.

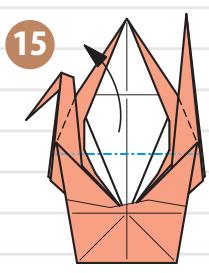


You can put a business card or other small objects in the space.

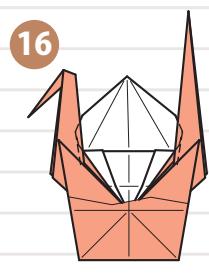
## Alternative Variant



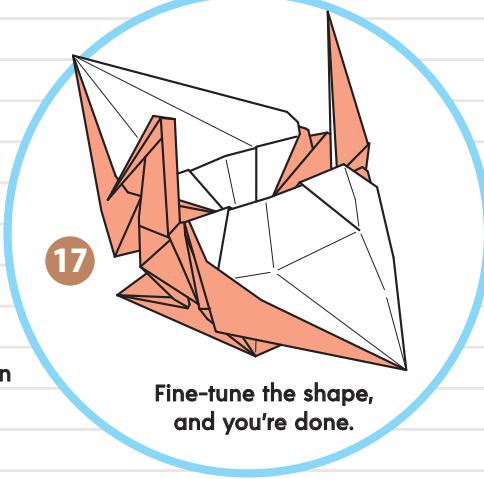
**14**  
Fold in the same way until step 10 (the wing on the closer side is not shown until step 16). Spread apart the top layers.



**15**  
Spread the wings with a mountain fold.



**16**  
Fold the other wing in the same way, and then reinforce the same 4 locations as in step 12.



**17**  
Fine-tune the shape, and you're done.

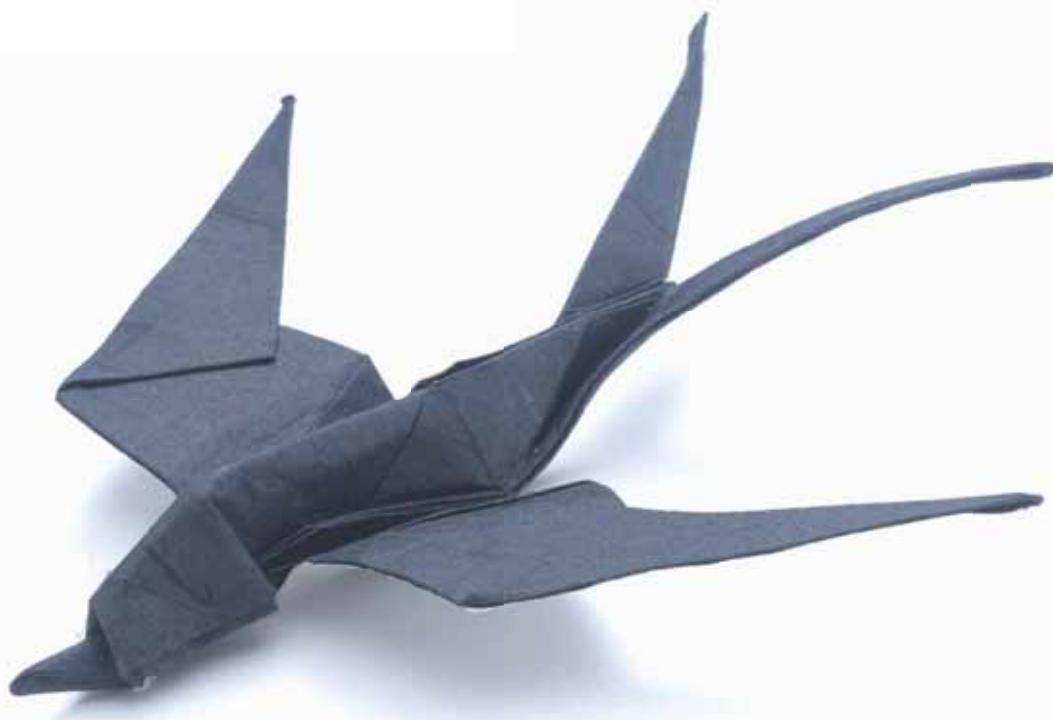
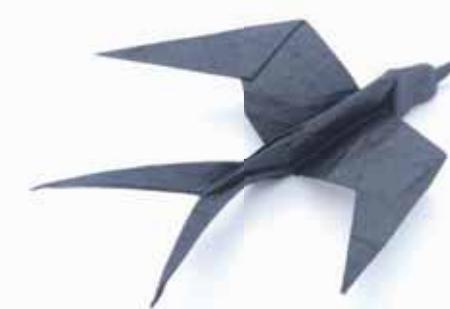


► Difficulty Rank: ★★★★★

## SWALLOW

★ Type of paper:

Washi (Japanese tissue—double-sided, thin, black-and-white paper)  
8½ x 8½ inch (21 x 21 cm)  
1 sheet



### Tips for folding

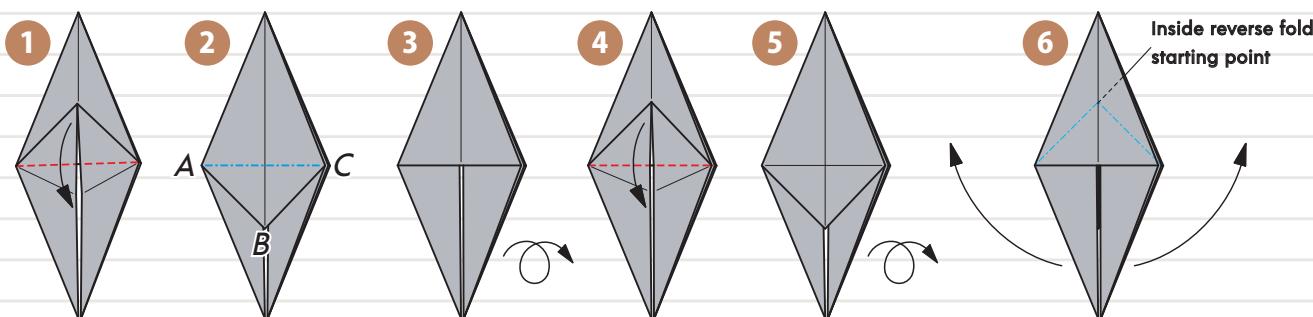
The process of folding the ABC triangle in the middle in step 2 appears multiple times in this book, so be sure to master it. If you spread and pull from the two corners underneath the ABC triangle, the later steps become easier to fold. The Swallow is a *color change*\* model, so I decided to use a double-sided black and white sheet. In order to give the second color to the back side of the wings, it's better to only apply glue after step 8 is completed. When folding the wings in step 15, if you also fold up a bit of the main body, you can make the wings look longer and the body look thinner and more stylish. To show off the white back side, it can be hung or placed on a moving display.

※ Color change origami:  
Origami models such as the Swallow or the Peacock with Train (page 22), in which I intentionally designed the models to show both sides of the paper.

## Start from the Frog Base (page 10)

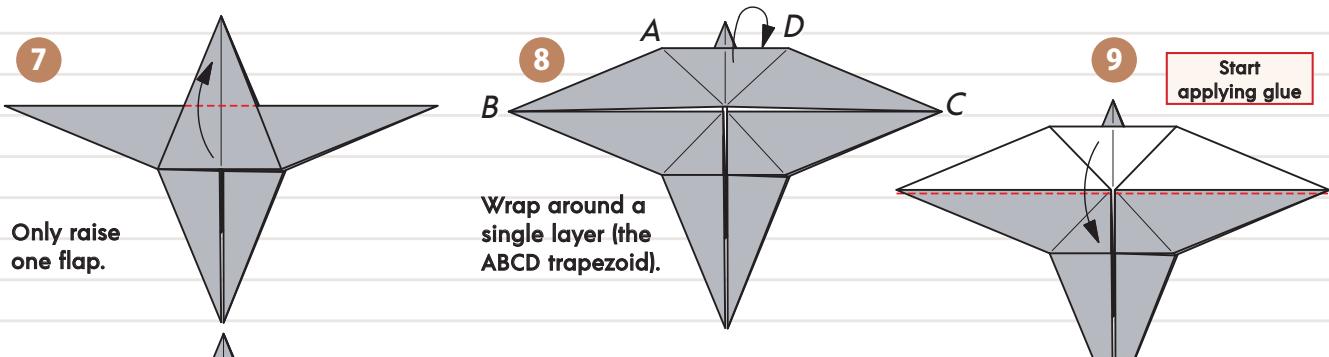


SWALLOW



Invert the ABC triangle inside.  
Repeat on the 2 hidden side flaps.

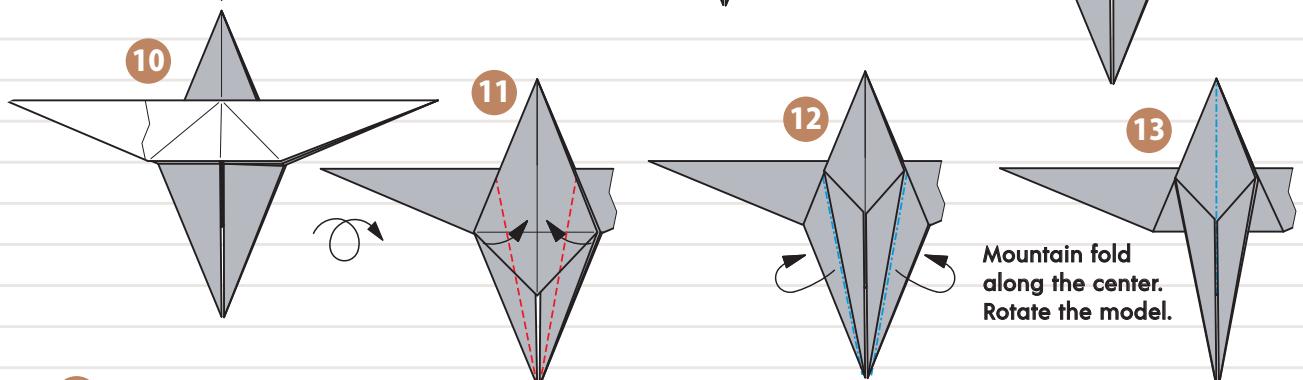
Inside reverse  
fold.



Only raise  
one flap.

A  
B  
C  
D  
Wrap around a  
single layer (the  
ABCD trapezoid).

Start  
applying glue

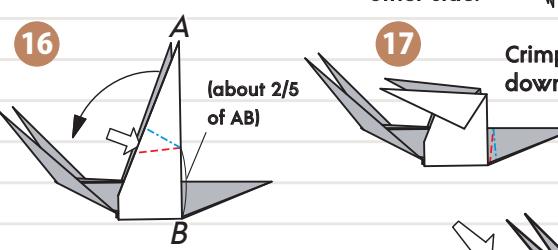


Mountain fold  
along the center.  
Rotate the model.



Valley fold.  
Repeat the  
step on the  
other side.

End of the  
basic folding

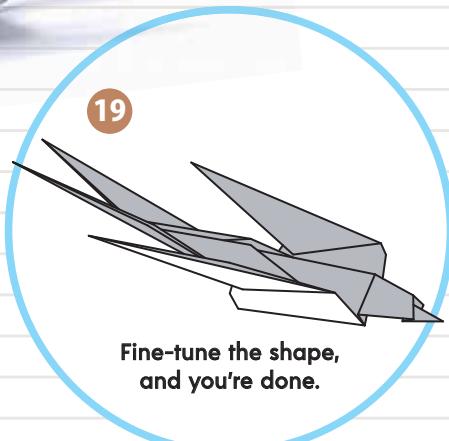


Crimp fold from  
the open arrow.  
Repeat on the  
other side.

18 Inside reverse  
fold in and  
then out.



Fine-tune the shape,  
and you're done.





► Difficulty Rank: ★★★★★

## PEACOCK WITH TRAIN

★ Type of paper:

Washi (Yuzen pattern outline—  
double sided, thin paper)  
8½ x 8½ inch (21 x 21 cm)  
1 sheet



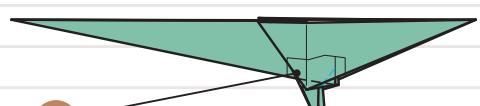
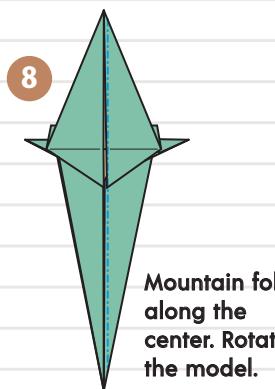
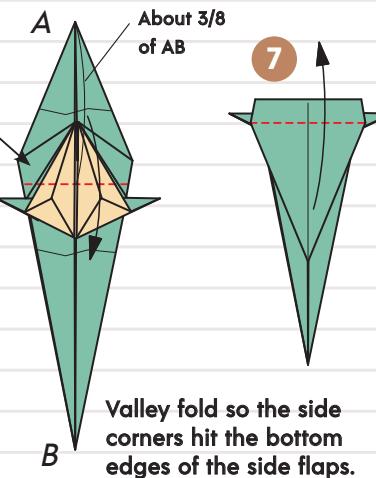
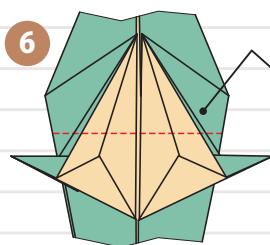
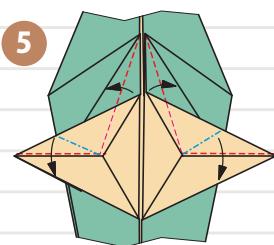
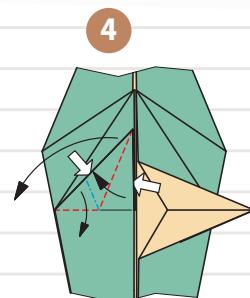
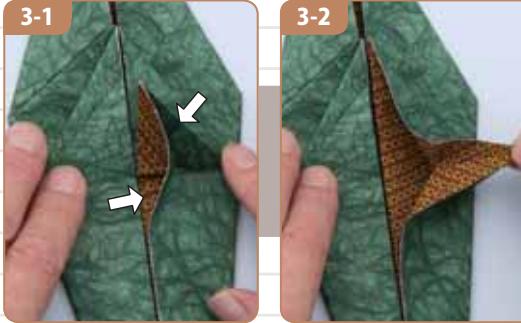
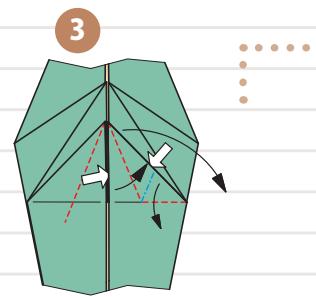
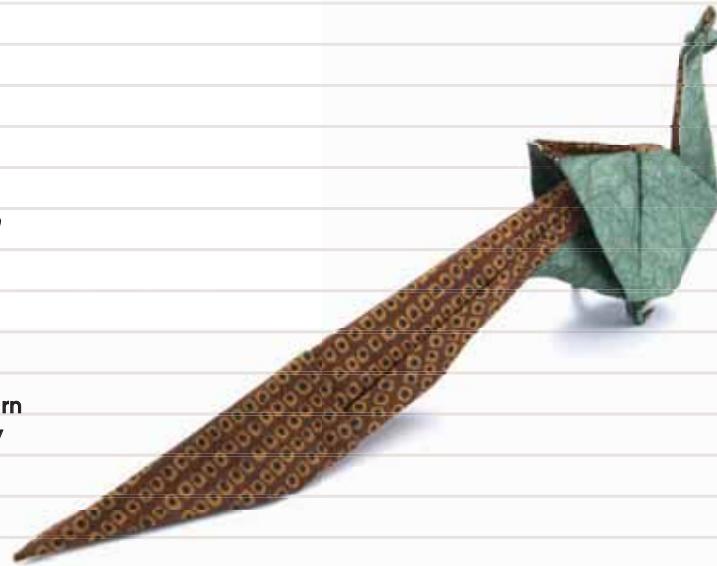
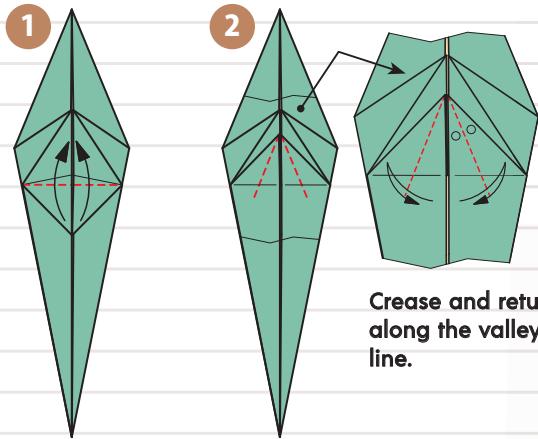
### Tips for folding

Start from the Dinosaur Base (page 11). The folding process used from steps 2 to 4 for the legs is a procedure that I use very often. It's not a difficult process, but following the illustrations is challenging, so I suggest repeating it multiple times until fully mastered. If the ABC triangle in steps 19–20 is made too large, the peacock will look off balance, so be careful to scale it correctly. It's better to only apply glue after step 20, because in that step the layer of paper is reversed. It's okay to preemptively apply glue on the back side of the front part of the valley fold in step 6.

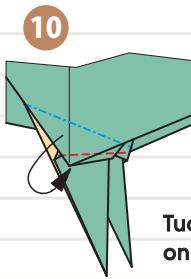
In order to make the legs thinner, you apply glue in all the gaps on the front side of the origami.



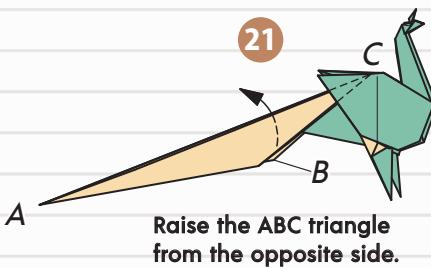
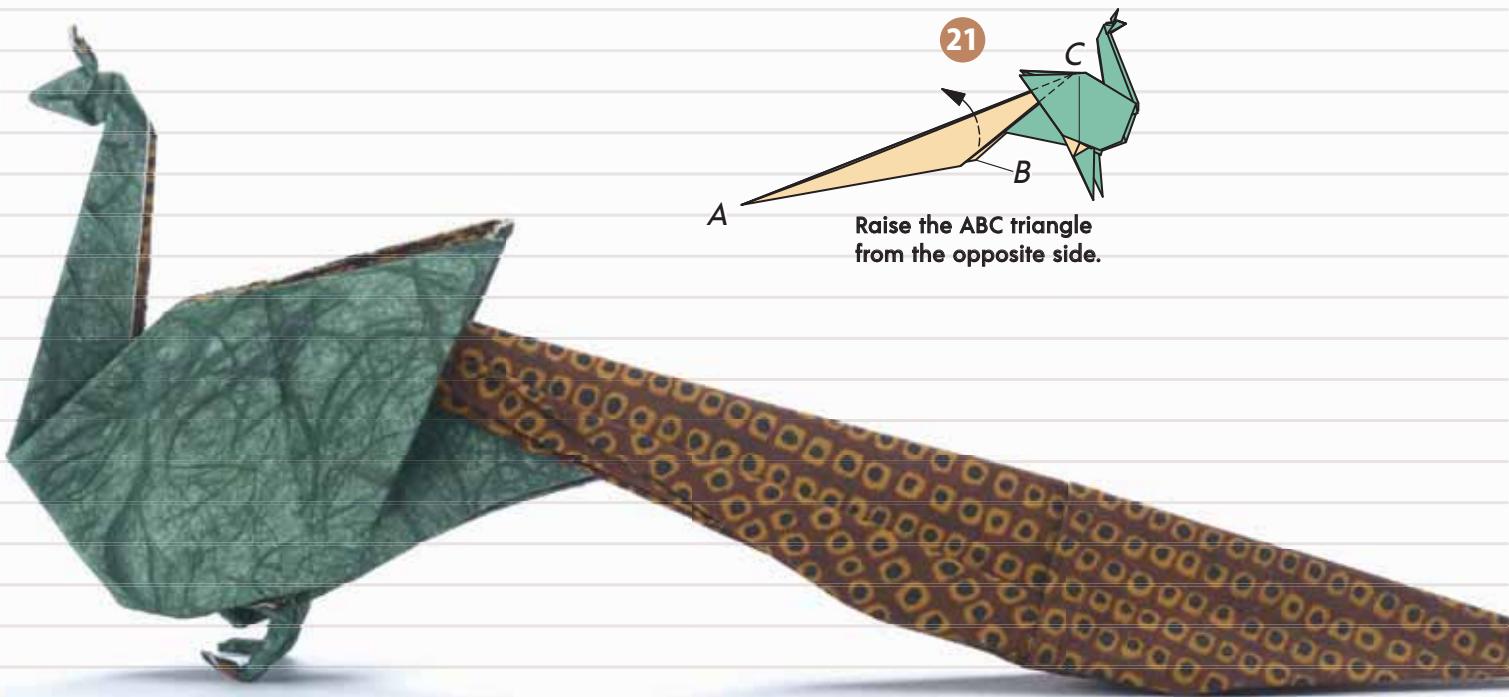
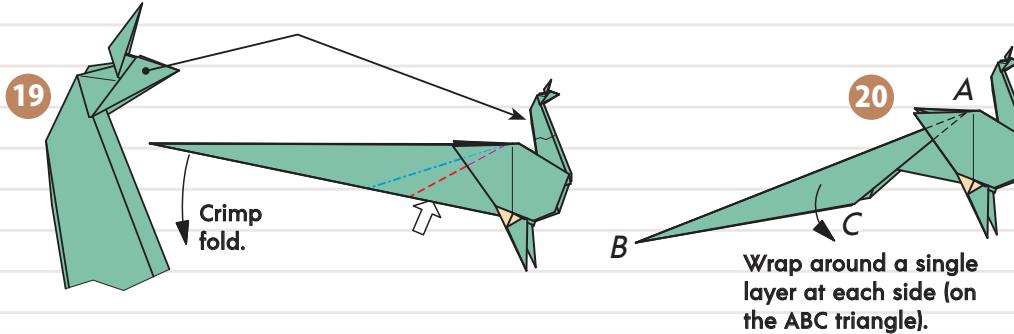
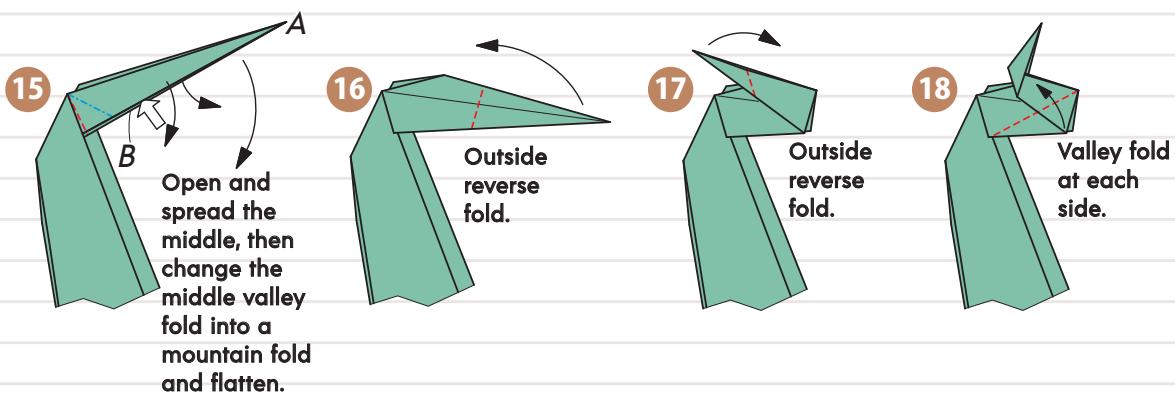
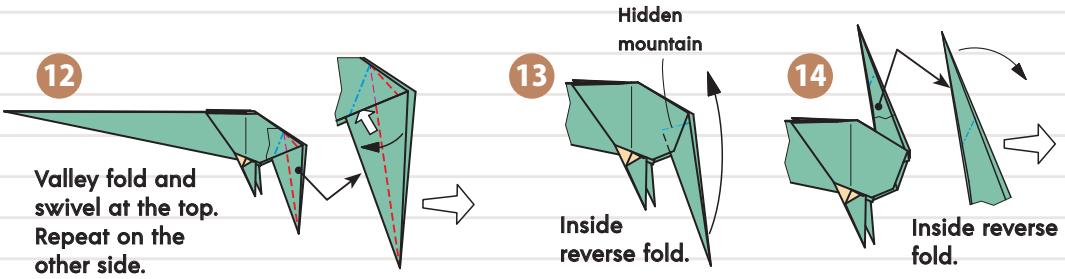
## Start from the Frog Base (page 10)

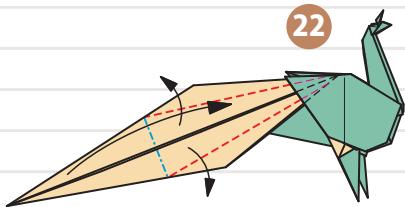


Inside reverse fold the inner hidden layers at each side.

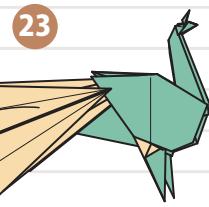


Inside reverse fold.

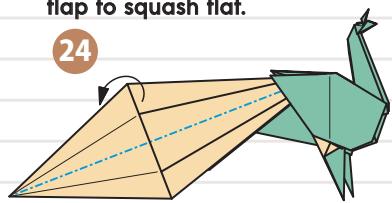




Valley fold the sides outward, allowing the flap to squash flat.

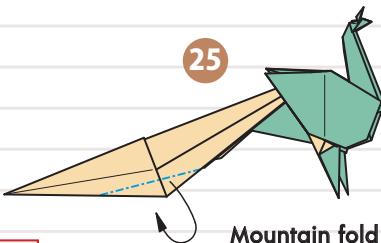


22



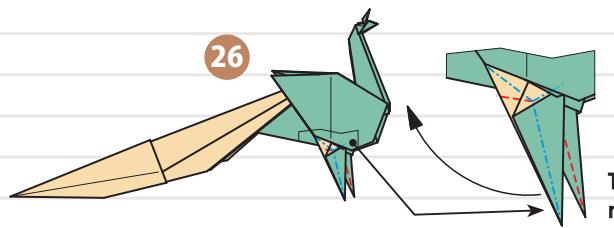
Mountain fold along the center line.

23



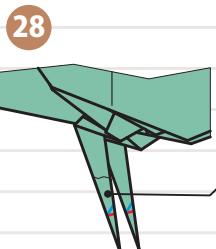
Mountain fold the corners at each side.

Start applying glue



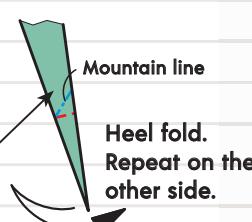
Thin fold to narrow. Repeat on the other side.

24



Inside reverse fold.

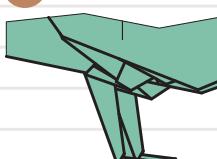
25



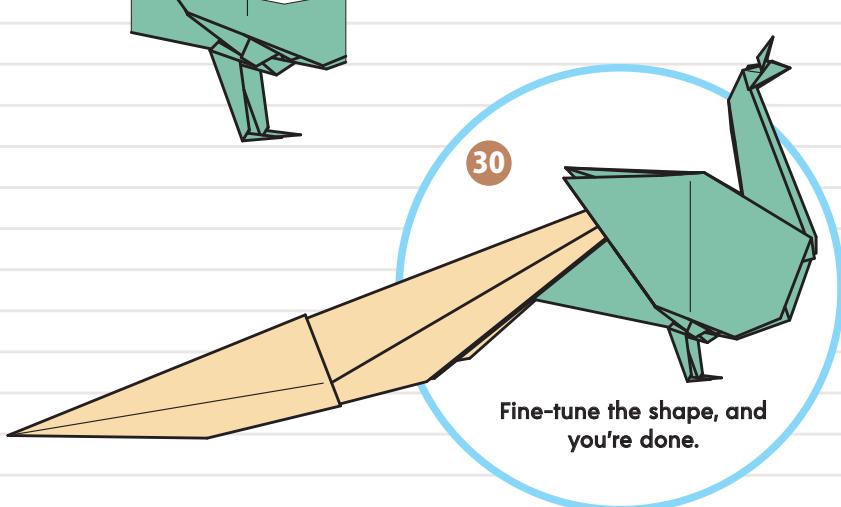
Mountain line  
Heel fold.  
Repeat on the other side.



26



27



Fine-tune the shape, and you're done.



► Difficulty Rank: ★★★☆☆

## PEACOCK WITH TAIL FAN

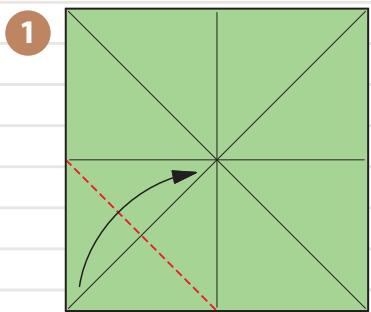
★ Type of paper:

Washi (dyed pattern)  
12 x 12 inch (30 x 30 cm)  
1 sheet

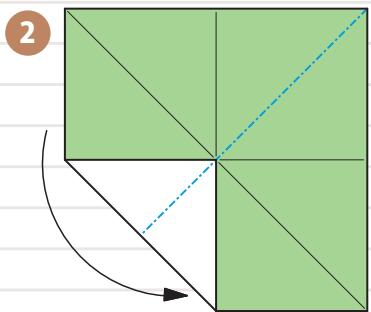


### Tips for folding

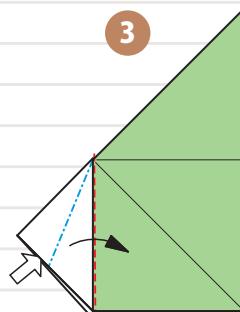
This model depicts a peacock with his feathers spread. In step 5 you'll use the "layer reforming fold" (page 9). This type of fold will appear many times in this book, so definitely work to master it. In step 27, you'll shape the back feathers into 16 equal parts with a "pleat fold" (page 8). If it proves too difficult to fold the feathers into 16 pleats, you can also fold them into 8 pleats instead. After step 27, the tail is pulled out from the back feathers, so if you are applying glue to the origami, don't apply glue the extra part for the tail. Because you are going to make it stand up on the two legs and the tail will be pulled out, apply glue in all the forward-facing leg valleys to give it stability.



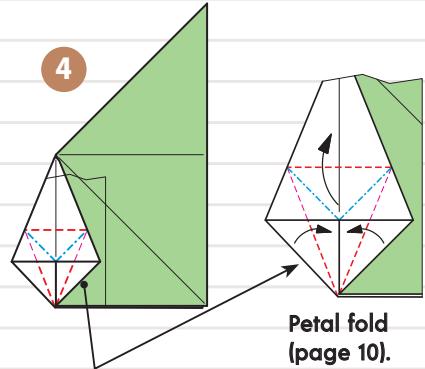
1 Begin with a square creased along the diagonals and the sides. Valley fold the corner.



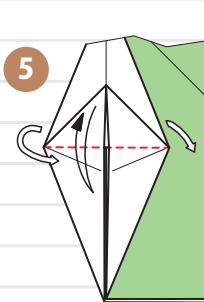
2 Mountain fold along the center.



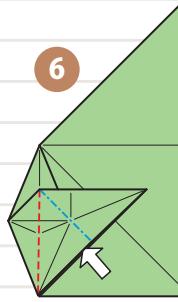
3 Squash fold from the arrow.



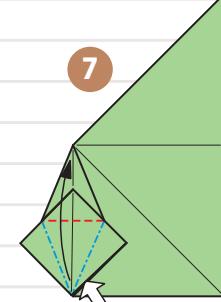
4 Petal fold (page 10).



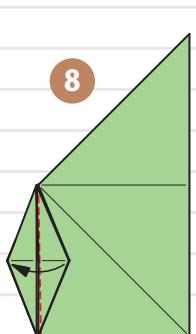
5 Wrap around and reform the layers (page 9).



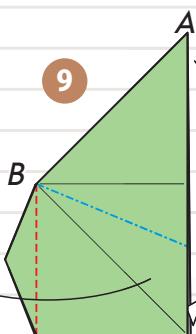
6 Squash fold from the arrow.



7 Petal fold (page 10).

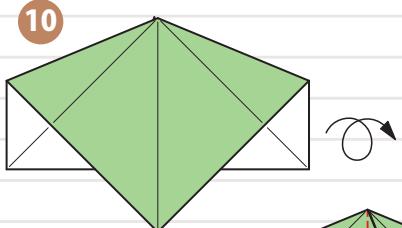
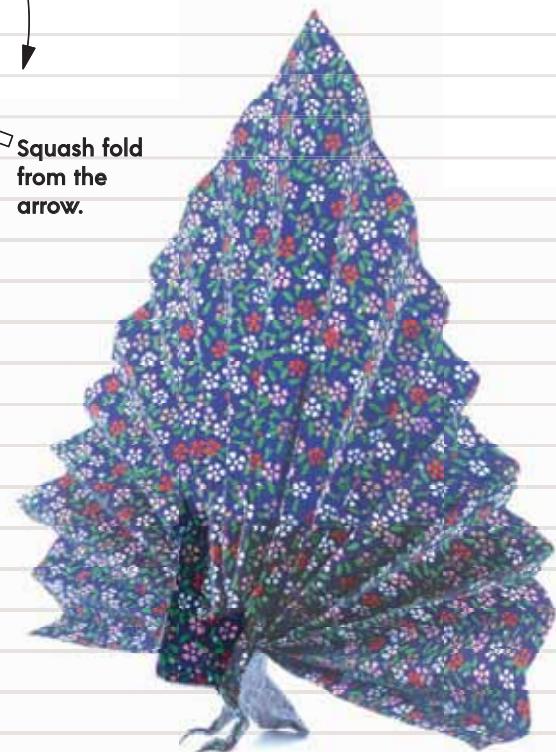


8

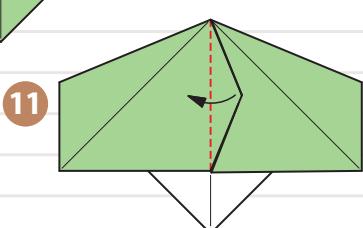


9

Place mountain  
crease A-B on  
top of B-C.

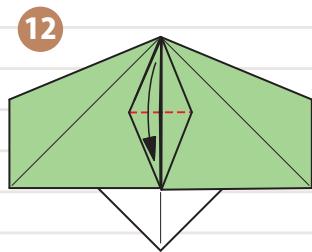


10

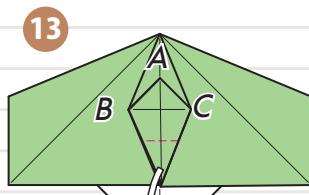


11

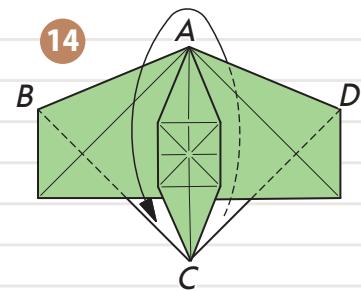
Spread open the  
layers to make the  
left and right sides  
symmetrical.



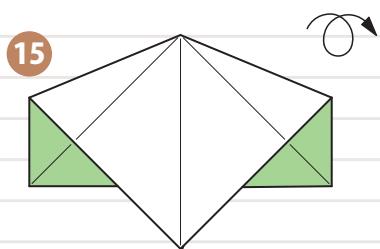
Swing down the top flap.



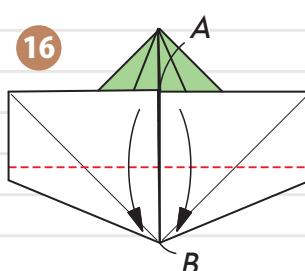
Pull the tip you lowered in step 12 and squash the ABC triangle.



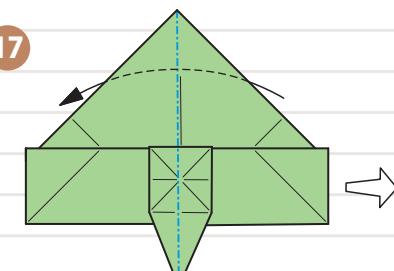
Wrap around the ABCD rhombus from behind.



Turn the model over and rotate.



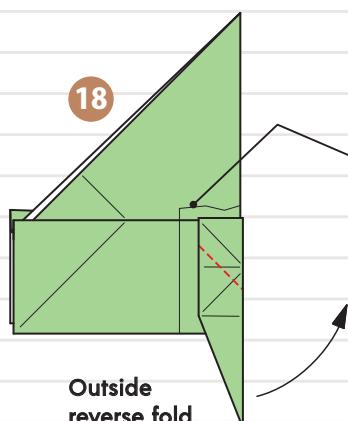
Valley fold so that the A and B corners meet.



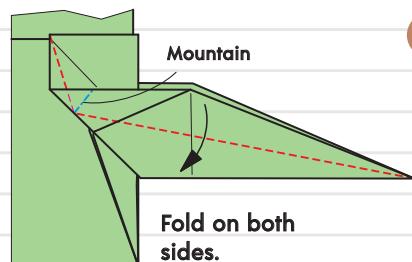
Mountain fold along the middle.

Add glue here for the first time (except on the back side that you can see)

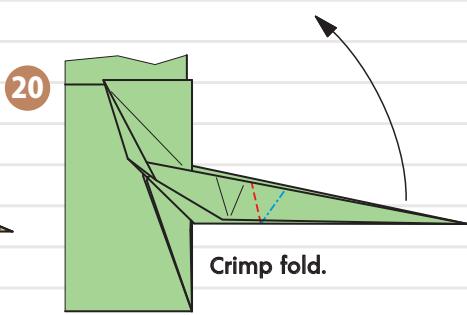
End of the base shape



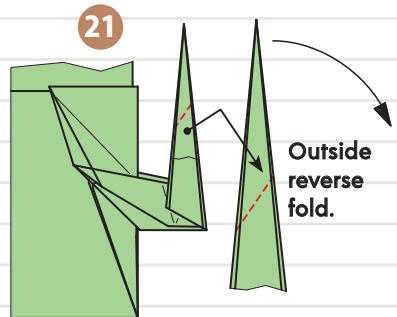
Outside reverse fold.



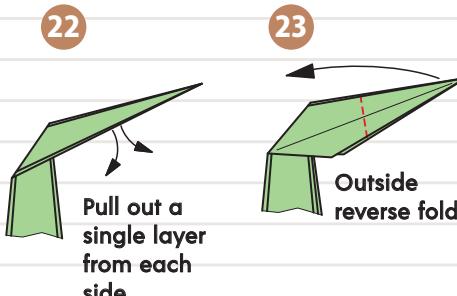
Mountain  
Fold on both sides.



Crimp fold.



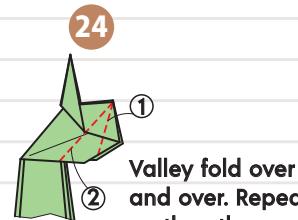
Outside reverse fold.



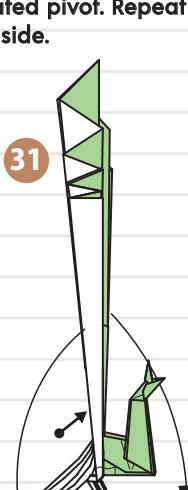
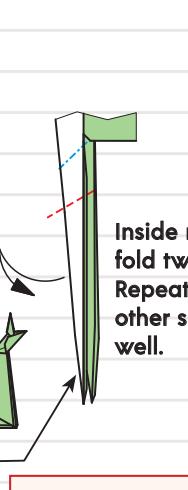
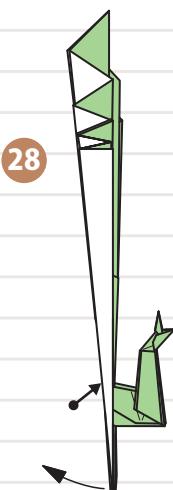
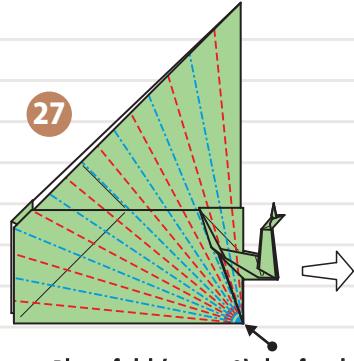
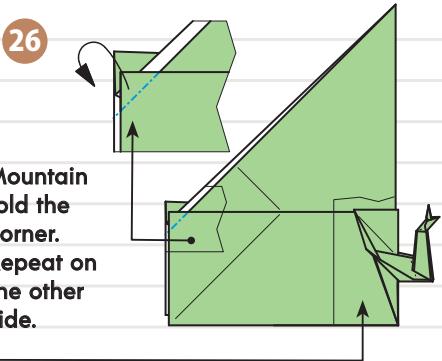
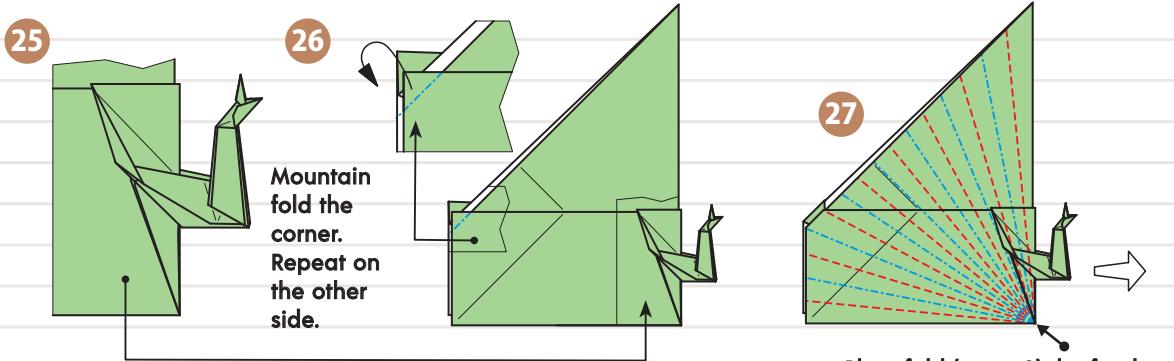
Pull out a single layer from each side.



Outside reverse fold.



Valley fold over and over. Repeat on the other side.



Starting from the dot-terminated arrow, release the trapped middle layers.

Start applying glue again,  
avoiding the parts on the feathers that spread

Starting from  
the dot-termi-  
nated arrow,  
pull and spread  
the feathers  
wide.

**32**

Fine-tune the shape,  
and you're done.





► Difficulty Rank: ★★★☆☆

## CROW

★ Type of paper:

Washi (rough veiny pattern)  
12½ x 12½ inch (32 x 32 cm)  
1 sheet

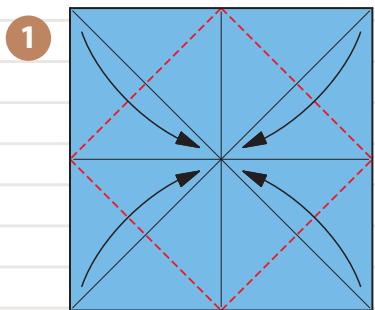


### Tips for folding

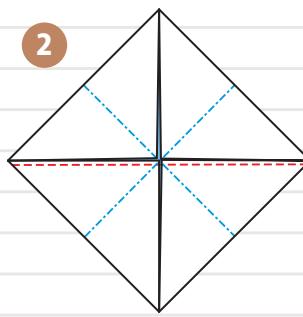
You'll fold the two legs with a layer reforming fold (page 9). If you're planning to apply glue, wait until you're done with the wing-folding process in step 22 to apply the glue on the wings. However, after step 5 is completed, you can apply glue on other parts. In the finished model, the wings are not very large, but there is a large tail with 3 corners, so the same folding process can be followed as that for folding other birds with emphasized tail feathers. The finished piece has very thin legs, so it's not able to balance on them. Because of this, I recommend changing the angle of the head or the pose in clever ways to compensate. For example, you could model a crow eating food off of the ground or looking up at the sky.



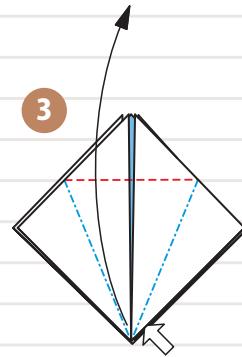
CROW



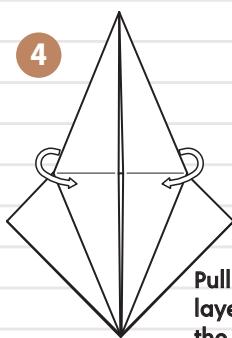
Begin with a square creased along the diagonals and the sides. Valley fold the corners to the center.



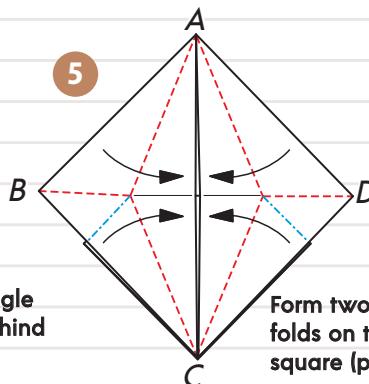
Form into the Preliminary Base.



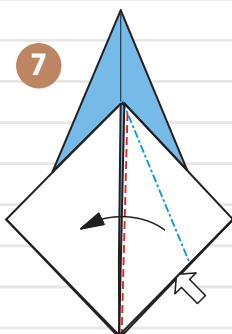
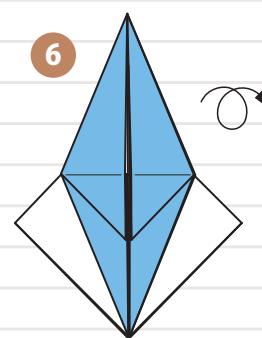
Petal fold (page 10).



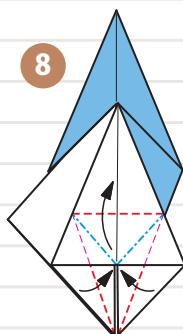
Pull out the single layers from behind the flap.



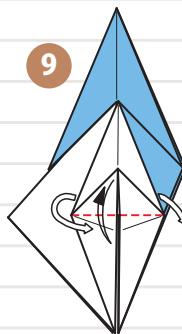
Form two rabbit ear folds on the ABCD square (page 9).



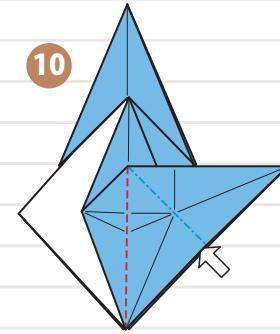
Squash fold from the open arrow.



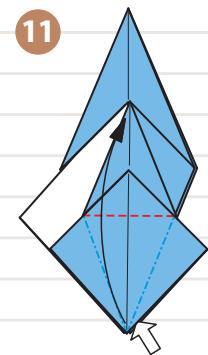
Petal fold (page 10).



Wrap around and reform layers (page 9).

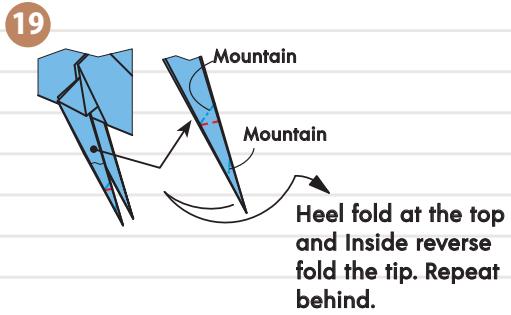
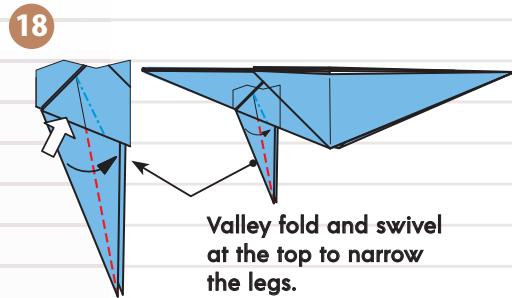
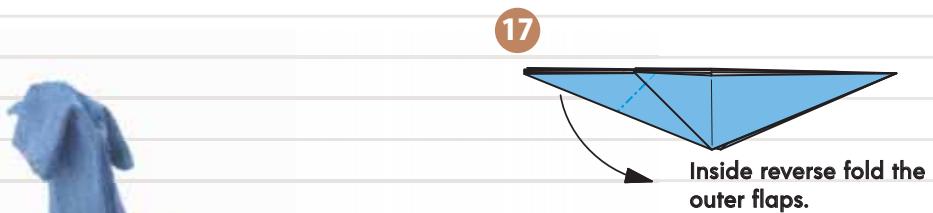
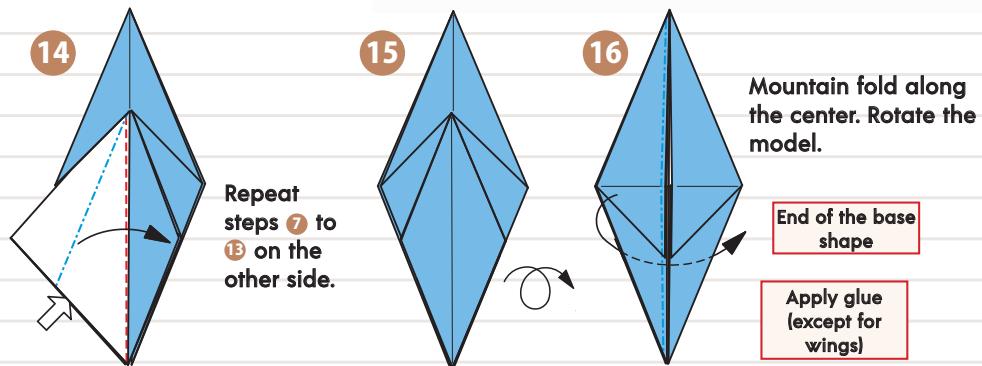
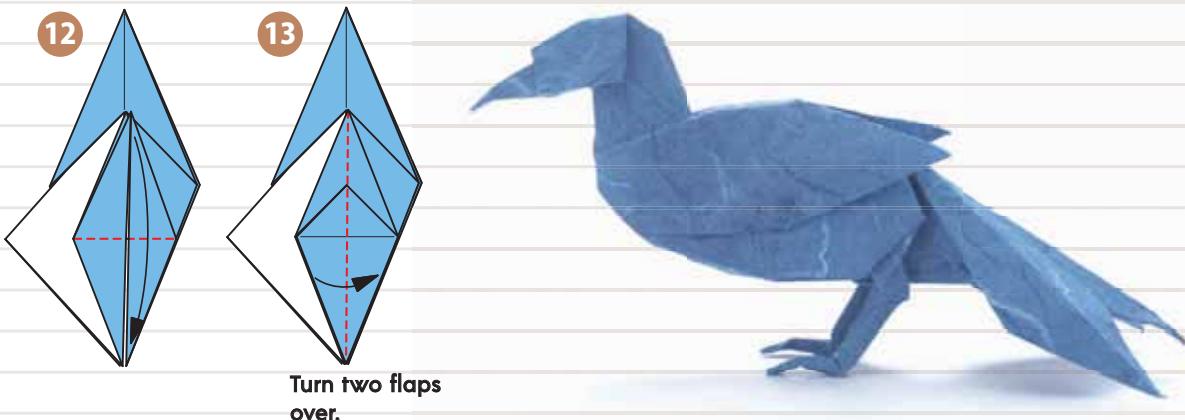


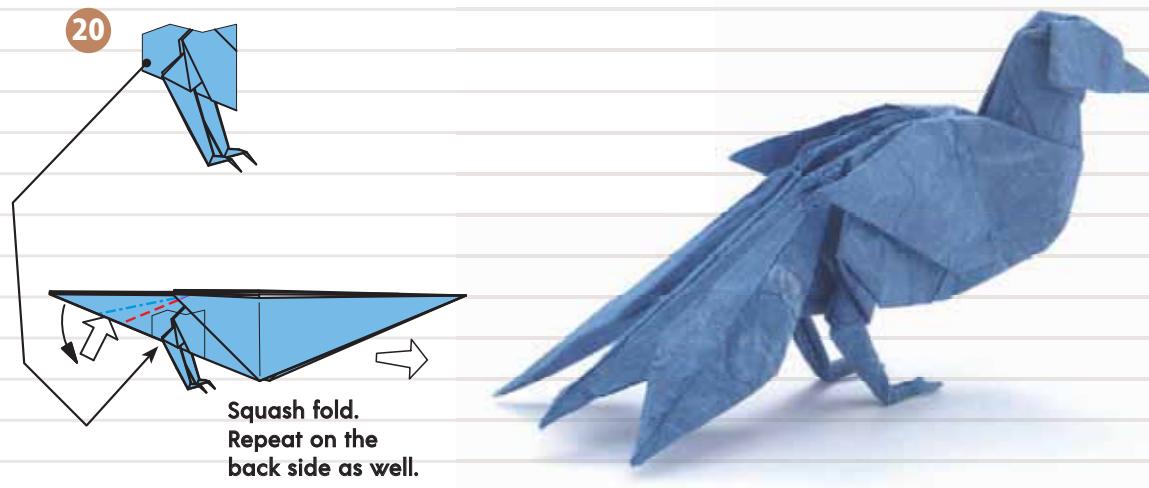
Squash fold from the arrow.



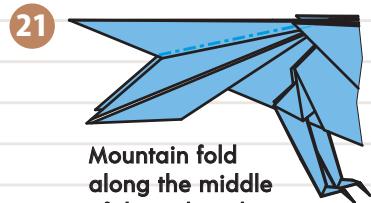
Petal fold.



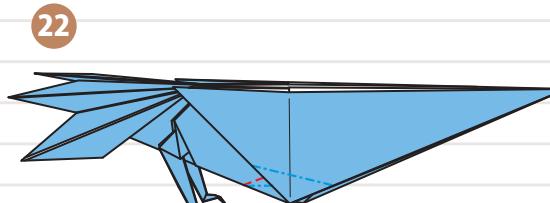




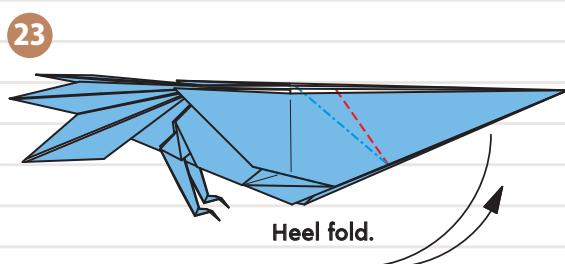
Squash fold.  
Repeat on the  
back side as well.



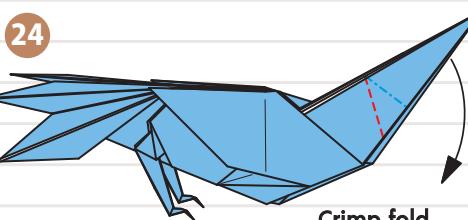
Mountain fold  
along the middle  
of the tail, and  
then flatten the  
two sides.



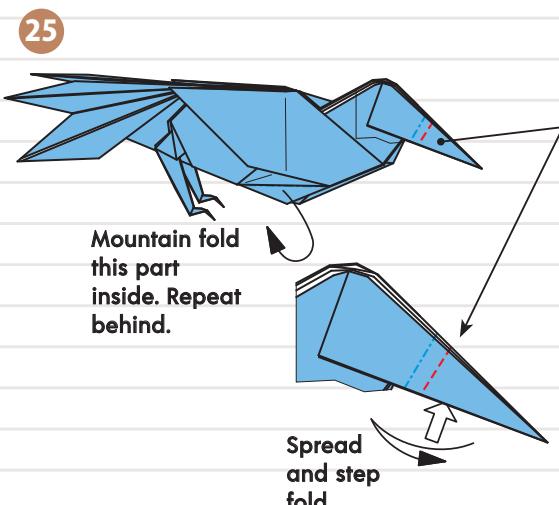
Spread squash  
and close back  
up. Repeat on the  
other side.



Heel fold.

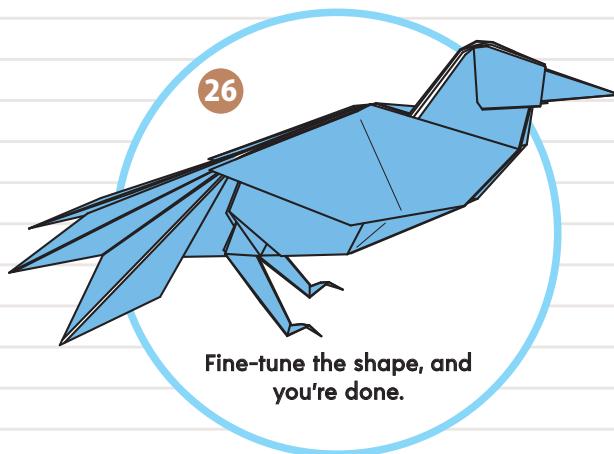


Crimp fold.



Mountain fold  
this part  
inside. Repeat  
behind.

Spread  
and step  
fold.



Fine-tune the shape, and  
you're done.



► Difficulty: ★★★☆☆

## FLAMINGO

★ Type of paper:  
Washi (stain dyed)  
9 x 9 inch (23 x 23 cm)  
1 sheet

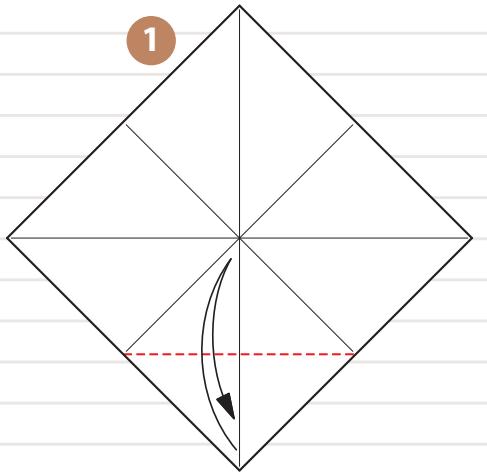


### Tips for folding

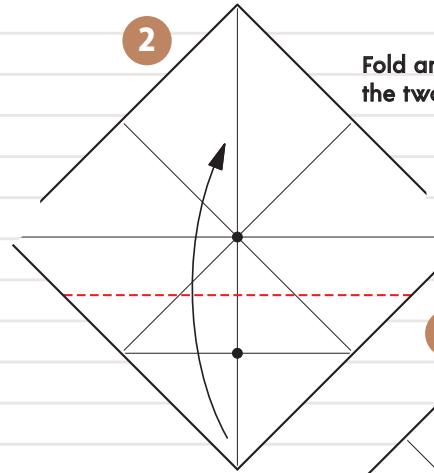
The toes are folded in steps 1-23, in what is called a *preparation fold*.<sup>\*</sup> After the preparation fold is complete, follow with the Crane Base (page 10), which is relatively easy to fold. In order to make the finished origami stand up on its own, it's important to spread the three toes evenly. I recommend applying glue to strengthen the toes. By applying glue to the legs as well, you can make them look skinny, like real flamingos' legs.

### ✖ Preparation Fold

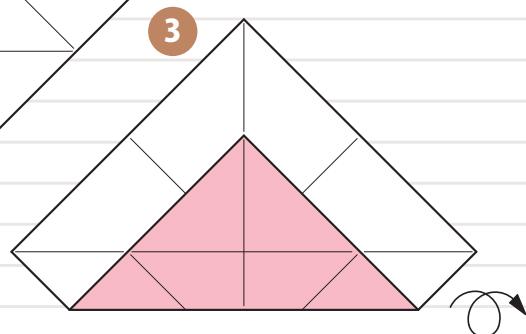
In this book, a "preparation fold" refers to a situation when a certain part of the body is entirely folded before the rest of the body is folded. In this book, preparation folds appear in the Flamingo, Sparrow (page 40), Chinese Dragon (page 102) and Chinese Phoenix (page 106) projects.



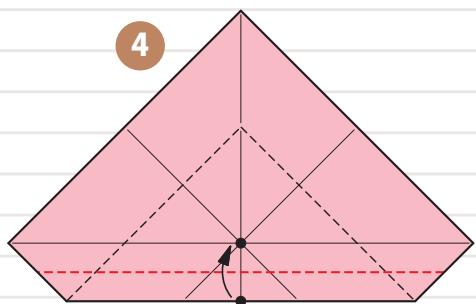
Begin with a square creased along the diagonals and the sides. Crease the bottom corner.



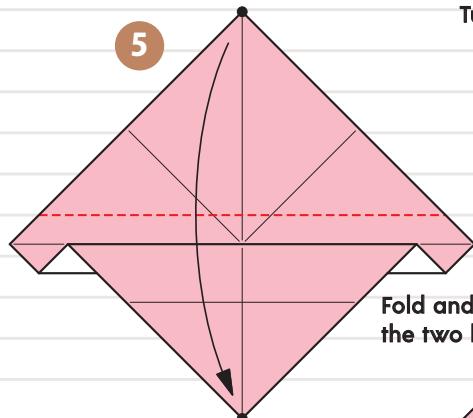
Fold and match the two black dots.



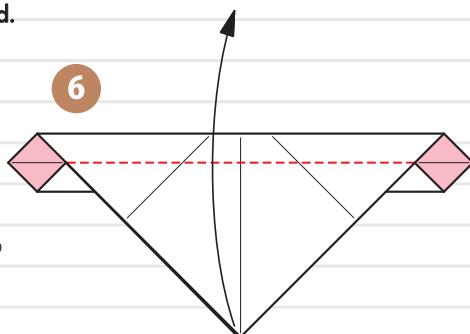
Turn the paper over.



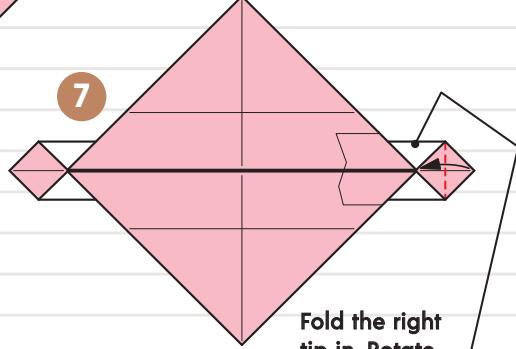
Fold so that the two dots match. Allow the triangular flap to come out from behind.



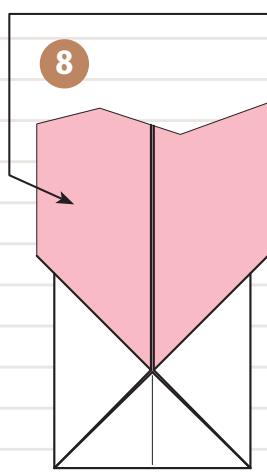
Fold and match the two black dots.



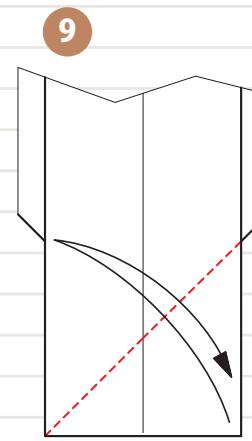
Fold the top flap up from the central horizontal crease.



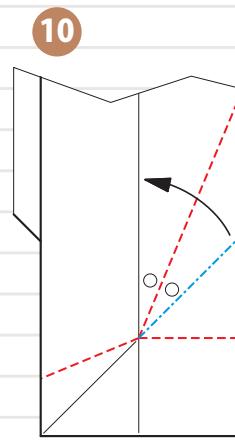
Fold the right tip in. Rotate.



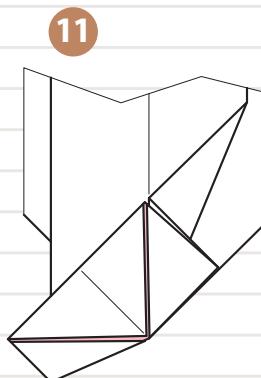
Turn the paper over.



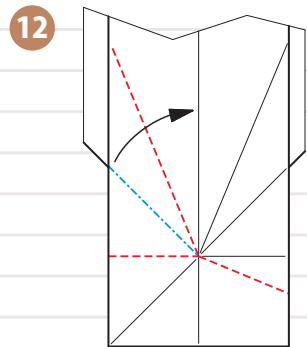
Crease along the diagonal.



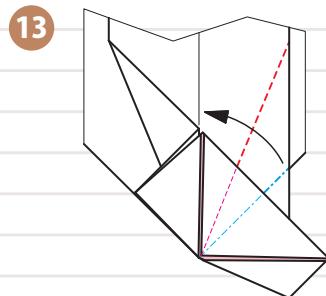
Squash fold. Refer to step 11 for the result.



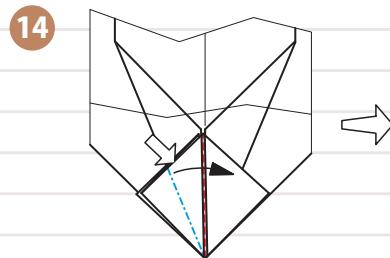
Return the paper to its previous position.



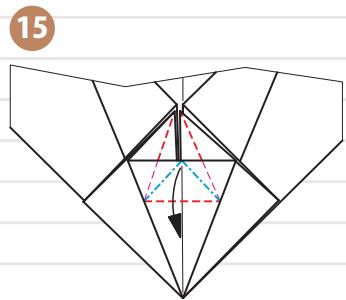
Repeat on the other side.



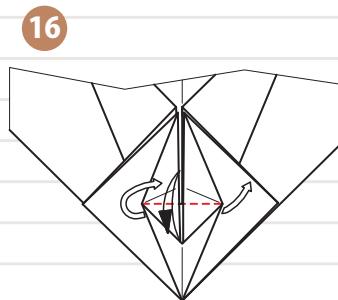
Fold along the crease from step 10.



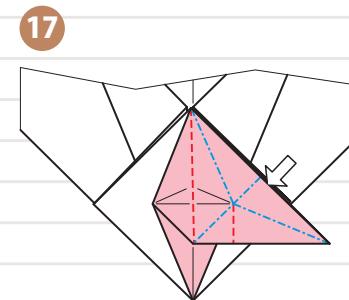
Squash fold from the open arrow.



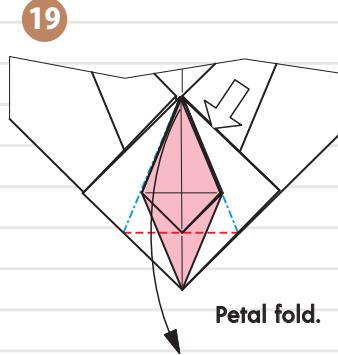
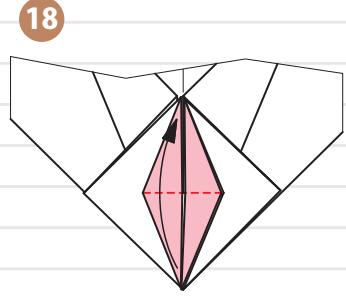
Petal fold (page 10).



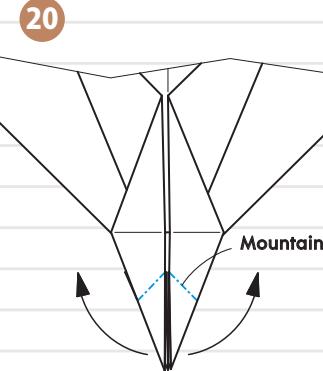
Wrap around and reform layers (page 9).



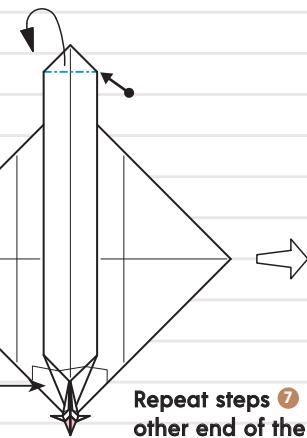
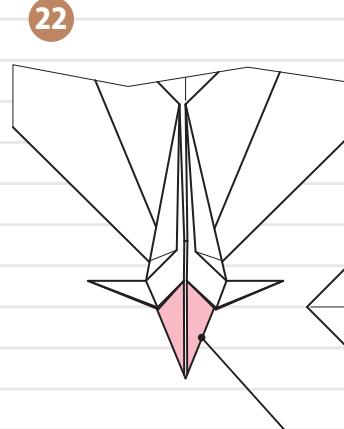
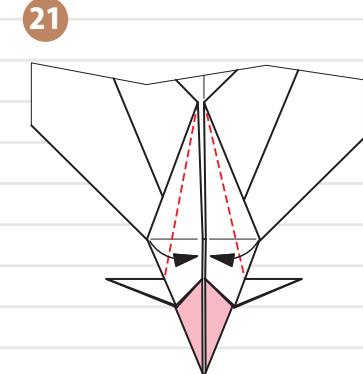
Squash and then petal fold.



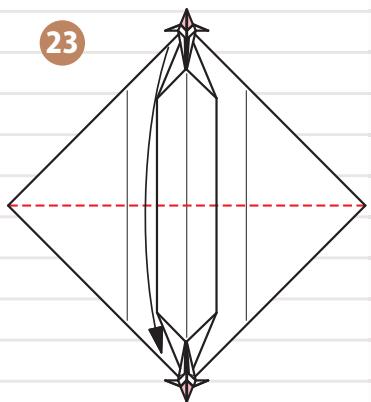
Petal fold.



Inside reverse fold.



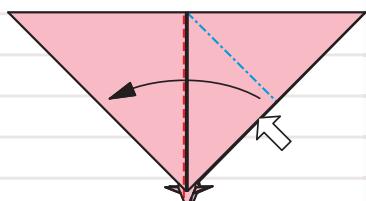
Repeat steps 7 to 21 on the other end of the model.



Apply glue (avoid the back side that is visible here)

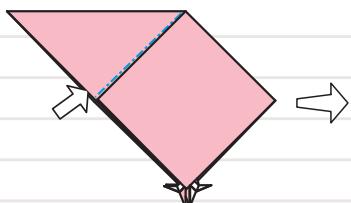


24



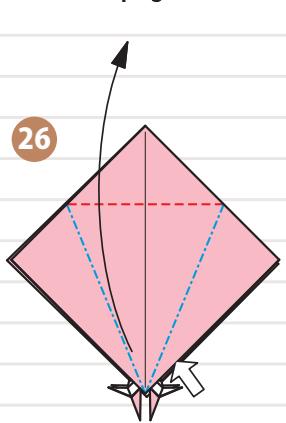
Squash fold.

25



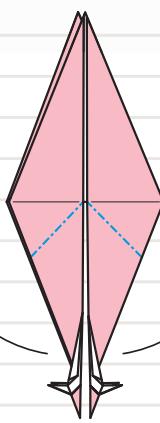
Repeat the squash fold  
on the back side, forming  
a Preliminary Base  
(page 10).

26



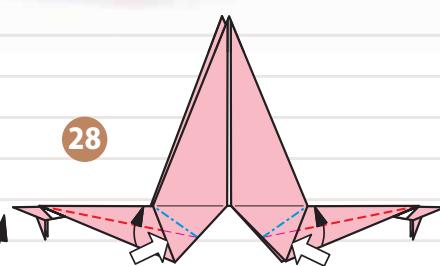
Petal fold. Repeat on  
the back side as well.

27

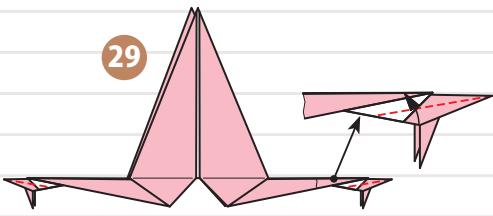


Inside reverse  
fold.

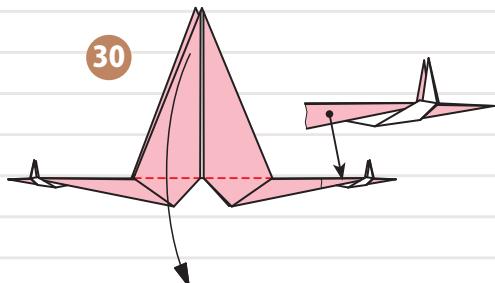
28



Valley fold the  
sides, swiveling in  
at the middle.  
Repeat on the  
other side as well.

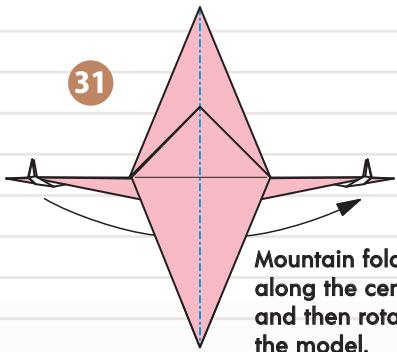


29



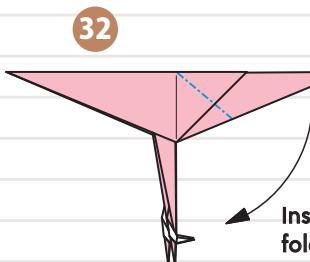
30

Repeat on the back side as well.

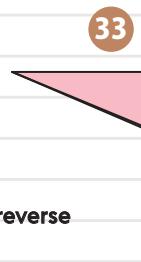


31

Mountain fold along the center, and then rotate the model.



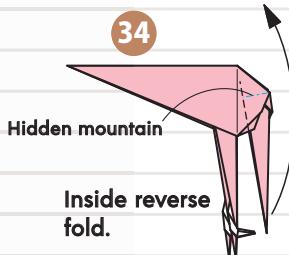
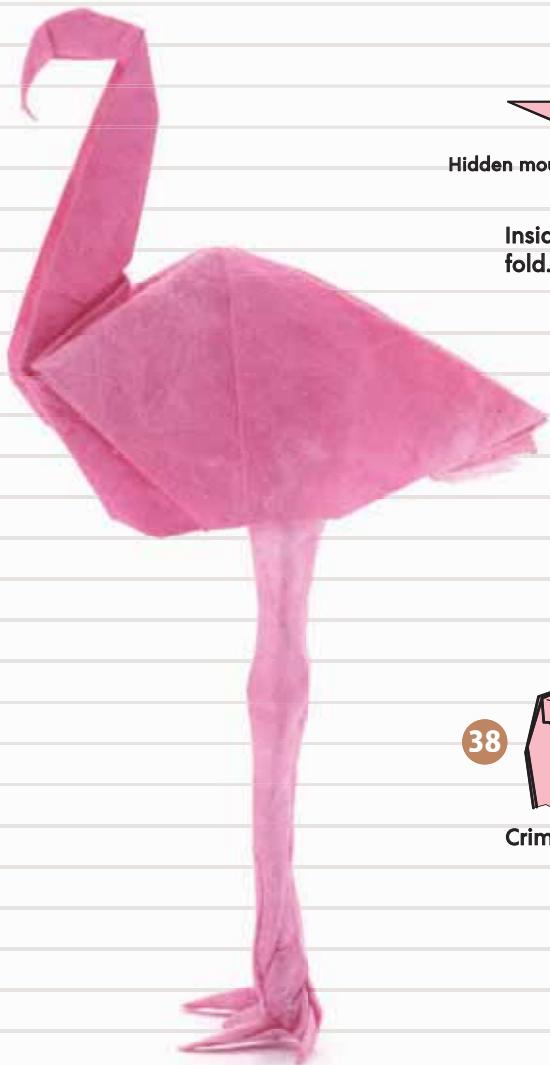
32



33

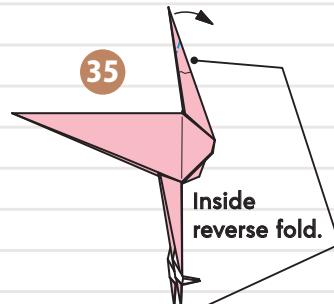
End of the base shape

Valley fold and swivel in at the top. Repeat on the back side as well.



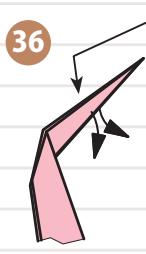
34

Hidden mountain  
Inside reverse fold.



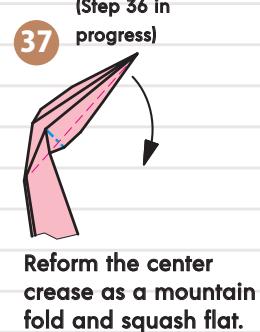
35

Inside reverse fold.



36

Open out.



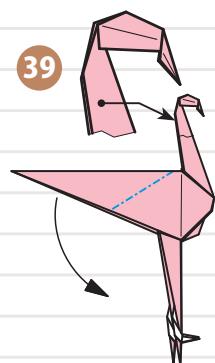
37

(Step 36 in progress)  
Reform the center  
crease as a mountain  
fold and squash flat.



38

Crimp fold.

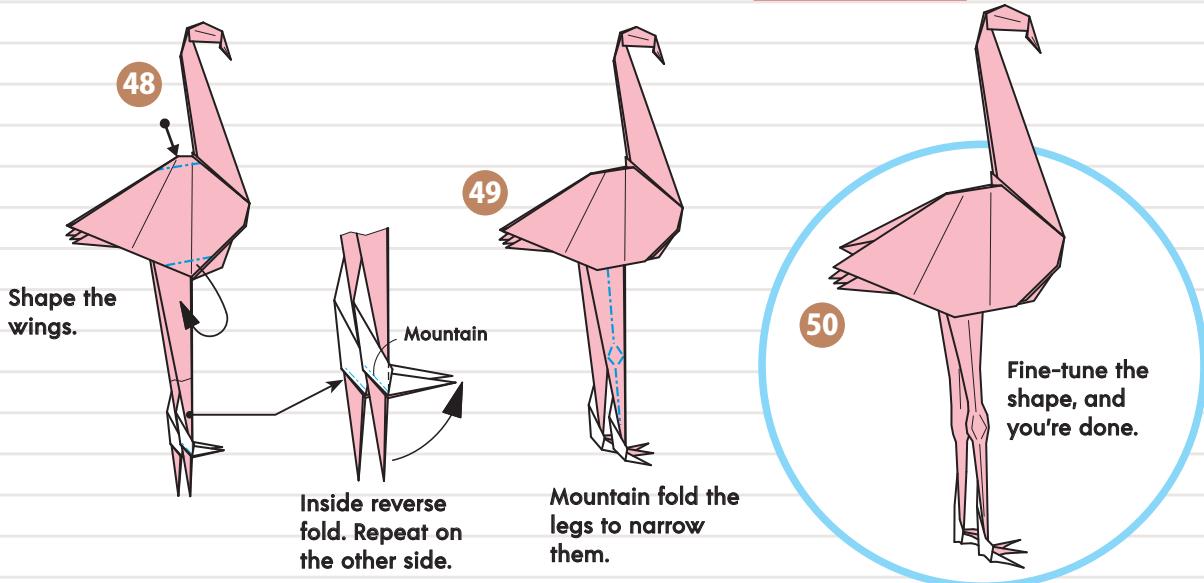
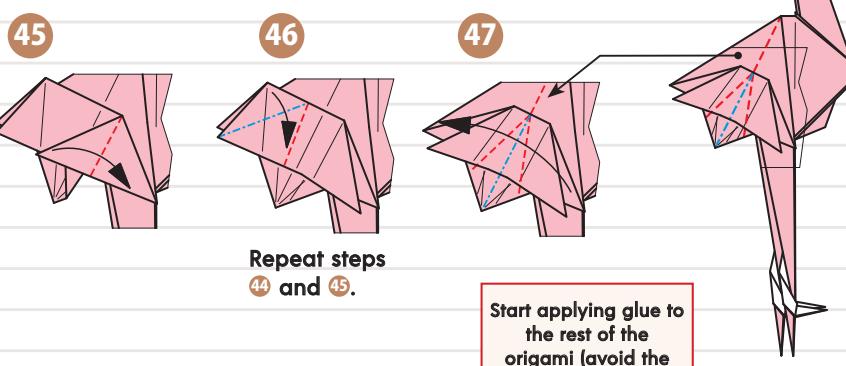
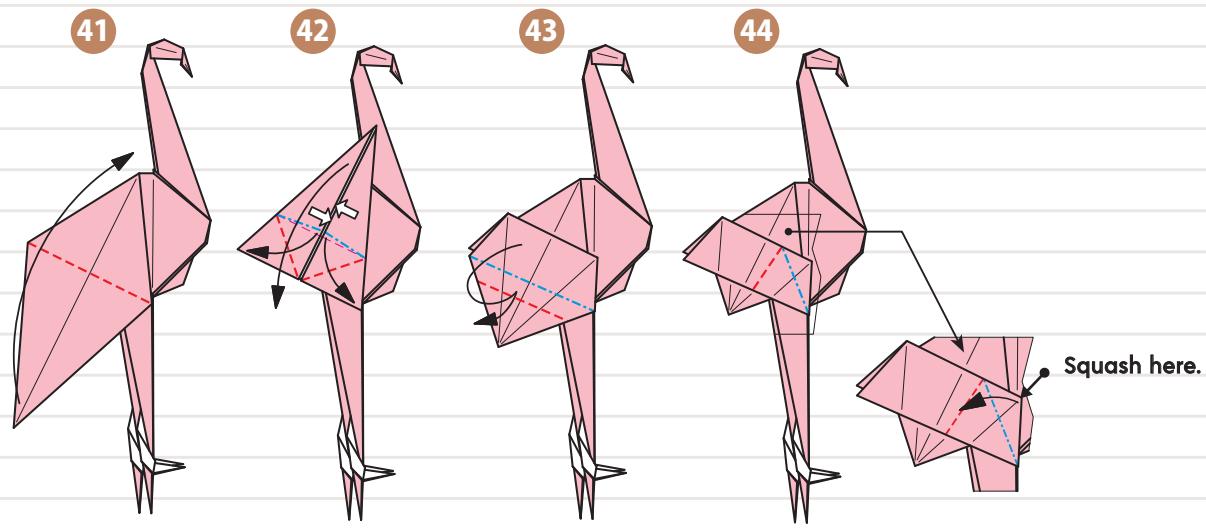


39

Inside reverse fold. Open the top flap to the right.

40







► Difficulty Rank: ★★★☆☆

## SPARROW

★ Type of paper:

Washi (rough veiny pattern)  
8½ x 8½ inch (22 x 22 cm)  
1 sheet



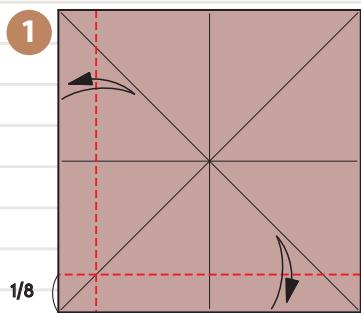
### Tips for folding

The claws require a "preparation fold" (page 34). The process in steps 4–10 is called a *claw fold*.<sup>\*</sup> As a very important technique for folding lifelike models, you should work to master it. The process of folding the wings (steps 34–37) incorporate "approximate folds" (page 14), so frequently refer to the illustrations to keep your bearings. When adjusting the tail in step 40, note that it lies close to the body, giving the whole model a compact look. To finish, it's a good idea to adjust the face so the beak is slightly open.

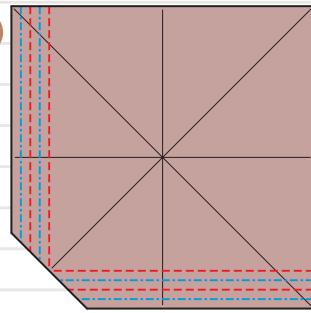
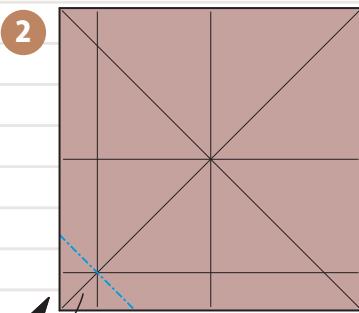
Although this process is not described in this book, it's possible to use the "color change" method (page 20) on the stomach to make it into a different color, so I recommend this challenge to more advanced folders.

### ※ Claw Fold

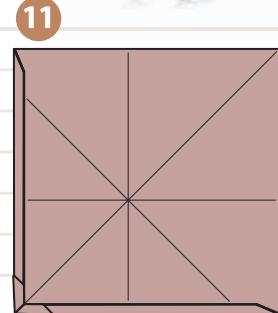
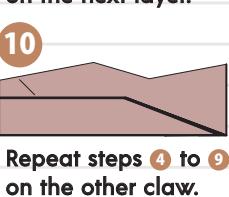
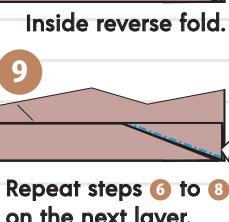
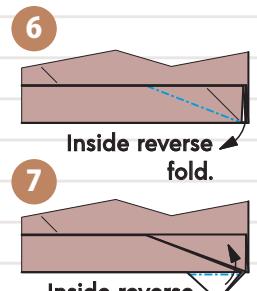
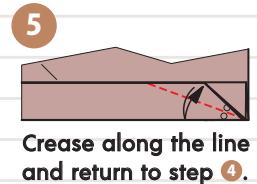
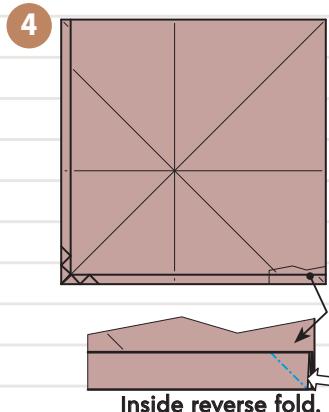
The process from step ④ to ⑩ is called a "claw fold." It is used to make claws in models such as the Chinese Dragon (page 102).



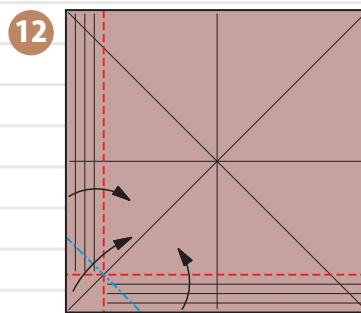
Crease along the diagonals and the sides. Valley fold at  $1/8$  distance from two edges.



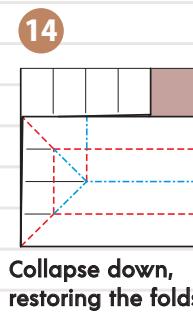
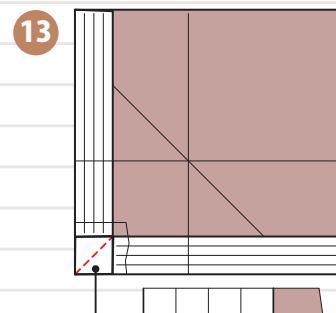
Pleat fold (page 8), in 4 equal parts. Repeat on the second side as well.



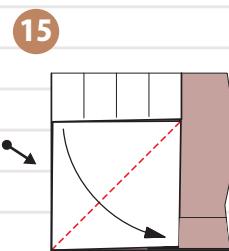
Open out the model completely.



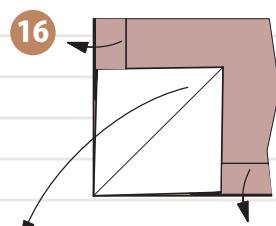
The fold lines from steps 4 to 10 are not shown. Collapse the corner.



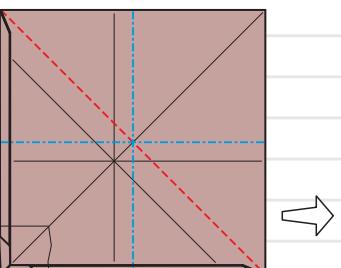
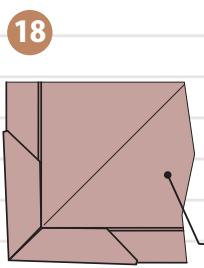
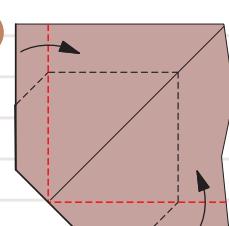
Collapse down, restoring the folds used for the claw from steps 4 to 10.



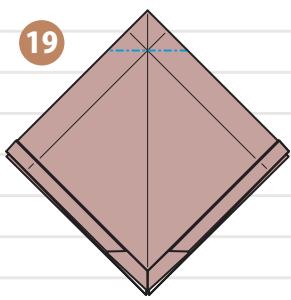
Repeat steps 13 to 16 on the other side as well.



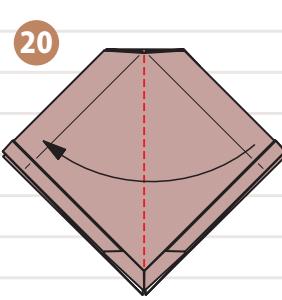
Wrap around the white square to the other side.



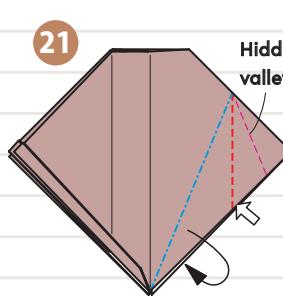
Using this side as the front, fold into the Preliminary Base (page 10).



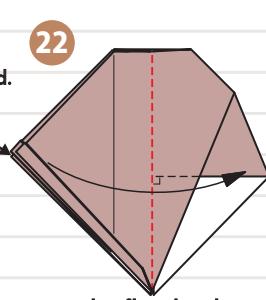
Sink fold (page 9).



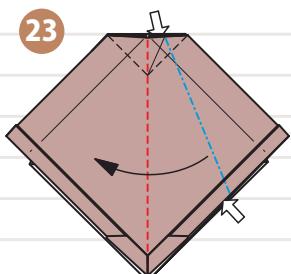
Swing over one flap.



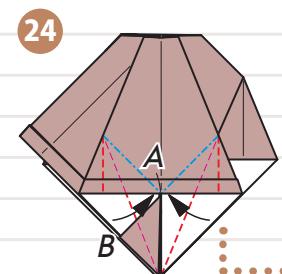
Hidden  
valley fold.



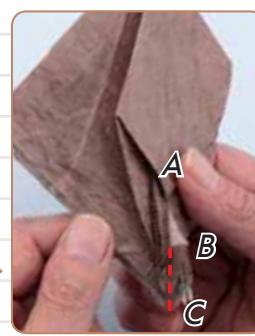
Swing the flap back over and then repeat steps 19 to 22, making the sides symmetrical.



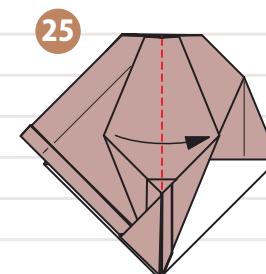
Squash fold from the arrows.



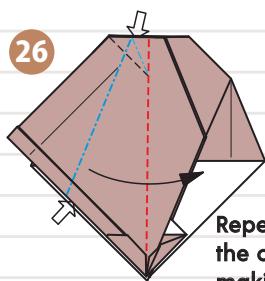
Reverse fold the sides, leaving the bottom shaded triangle untouched.



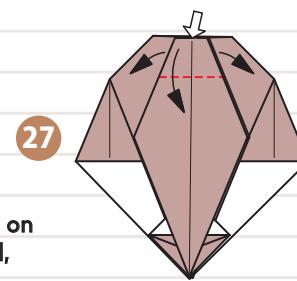
the valley line enters diagonally.



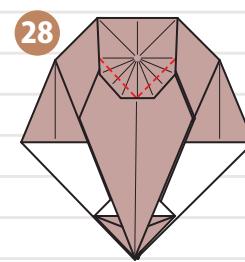
Swing over one flap.



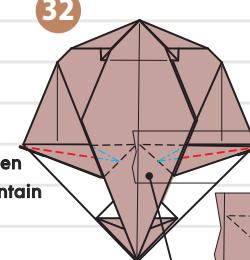
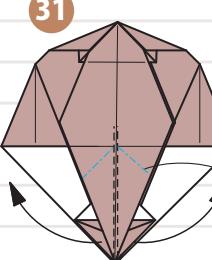
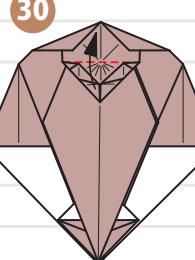
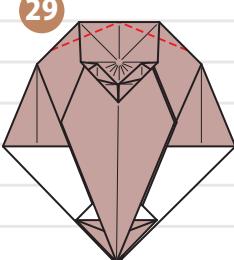
Repeat steps 23 to 25 on the other side as well, making the left and right sides symmetrical.



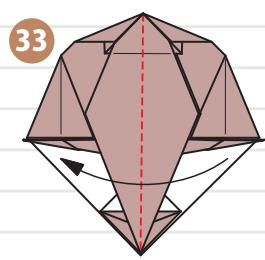
Spread open the pleats and flatten.



Valley fold the edges, swiveling in at the middle. Repeat on the back side as well.

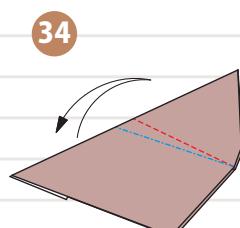


Inside reverse fold.

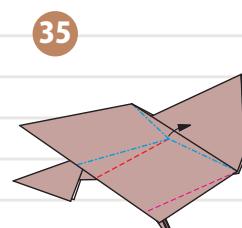


Valley fold along the center, then rotate the model.

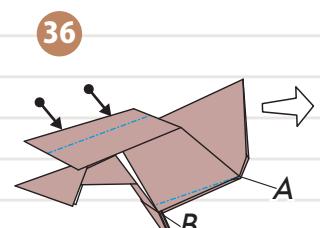
End of the base shape



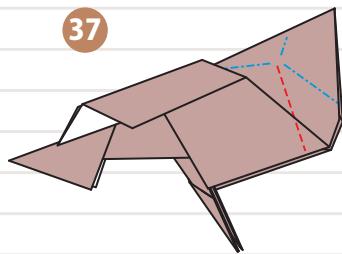
Crimp the outer layer up.



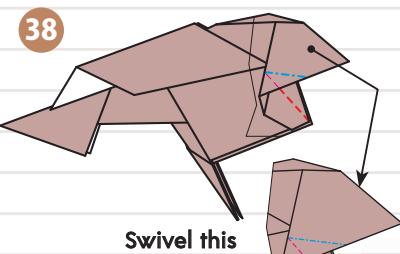
Slide the layers over while pleating. Repeat on the back side.



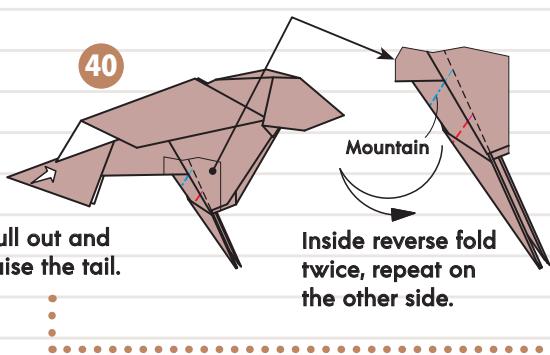
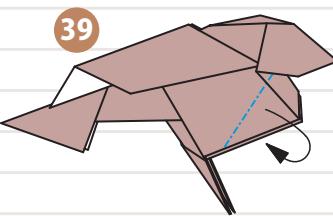
Sink the top edge. Mountain fold the edge A-B inside. Repeat on the other side.



37  
Do a three-dimensional crimp fold and fold the head in a three-dimensional shape.



38  
Swivel this part inside. Repeat on the other side.



40  
Pull out and raise the tail.

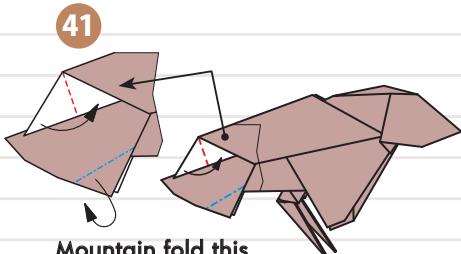
Mountain  
Inside reverse fold twice, repeat on the other side.



Pull out and raise.

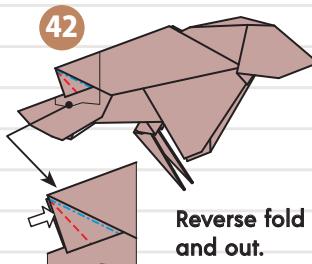


Fold under the wings.

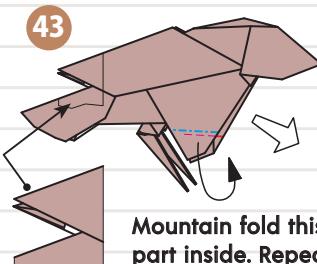


41  
Mountain fold this part inside, repeat on the other side.

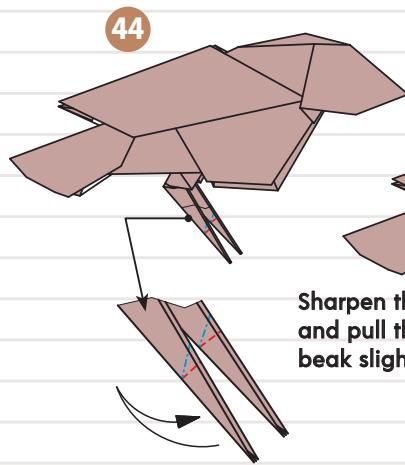
Start applying glue



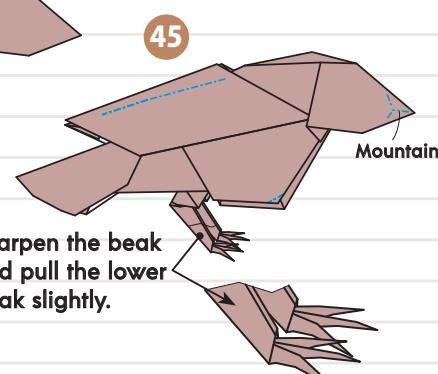
42  
Reverse fold in and out.



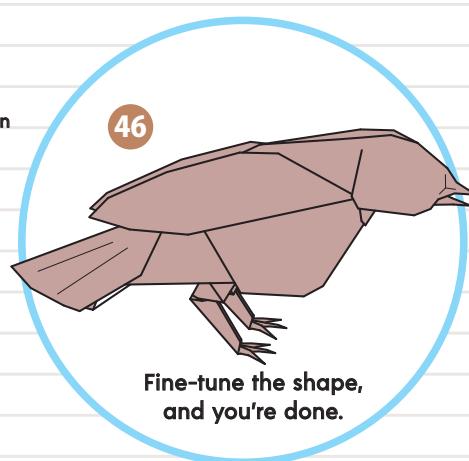
43  
Mountain fold this part inside. Repeat on the other side.



44  
Heel fold and spread the claws.



45  
Sharpen the beak and pull the lower beak slightly.



46  
Fine-tune the shape, and you're done.



► Difficulty Rank: ★★★★☆

## SEAGULL

★ Type of paper:

Washi (rough pattern)  
12½ x 12½ inch (32 x 32 cm)  
1 sheet

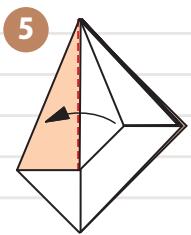
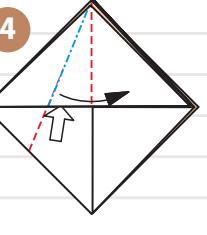
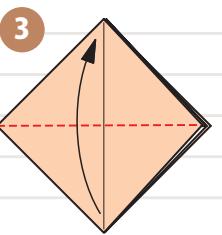
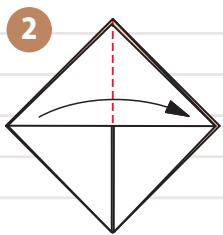
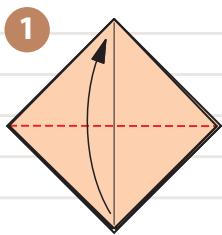


### Tips for folding

Because this model has large wings and can be folded relatively easily, the same techniques can be used for folding other types of birds. The process used to fold legs in step 22 makes the base of the legs thinner. This process appears often in origami, so I recommend that you master it. The same method can also be used to fold animals' ears. In the process of creasing the wings in step 33, be careful not to start from a point that has both a valley and a mountain line. Once all creases are folded, fold the legs horizontally. When giving the finishing touch at the end, you can arrange the shape of the bird by shifting the valley line on the front side.

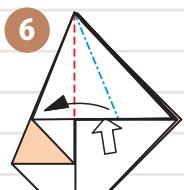


**Start from the Preliminary Base**  
(page 10)

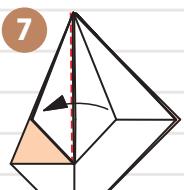


Valley fold the top layer.

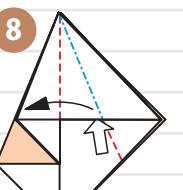
Squash fold.



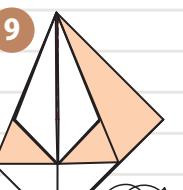
Squash fold from the open arrow.



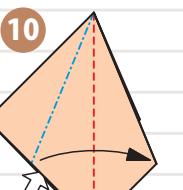
Swing over one layer.



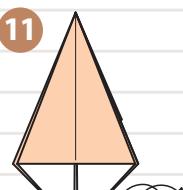
Repeat steps 4 to 5.



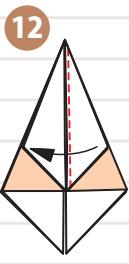
Step 9.



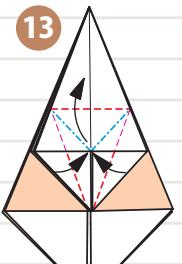
Squash fold from the open arrow.



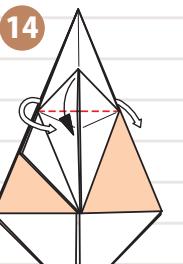
Step 11.



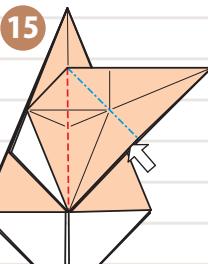
Swing over one layer.



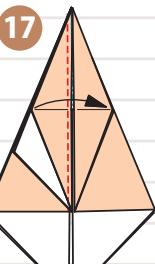
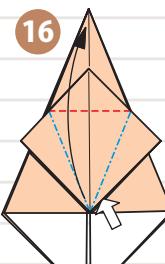
Petal fold (page 10).



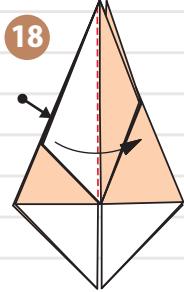
Wrap around and reform the layers (page 9).



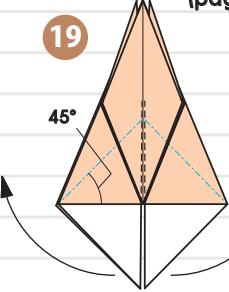
Petal fold (page 10).



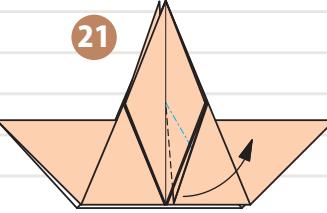
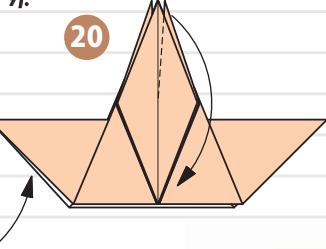
Step 17.



Repeat steps 12 to 17 on the other side, making the left and right sides symmetrical.



Inside reverse fold.



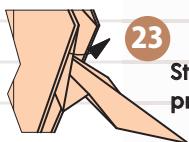
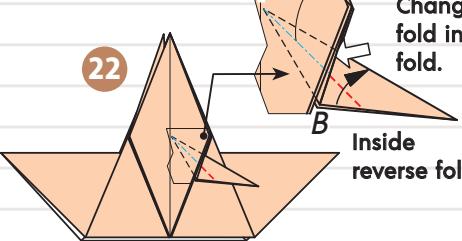
Inside reverse fold.

Inside reverse fold.

Hidden Mountain

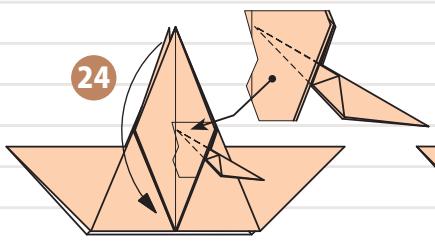
Change the A-B valley fold into a mountain fold.

Inside reverse fold.

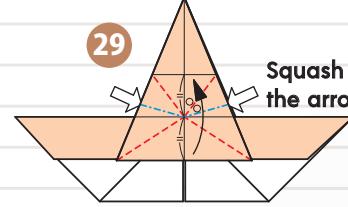
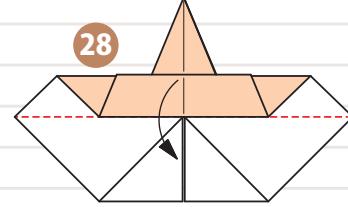
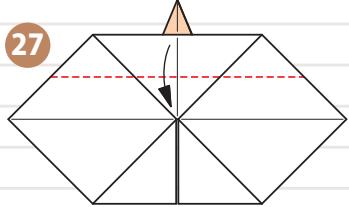
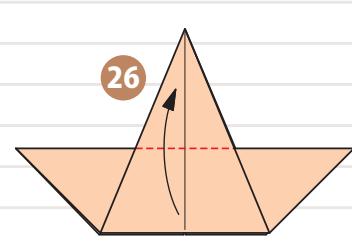
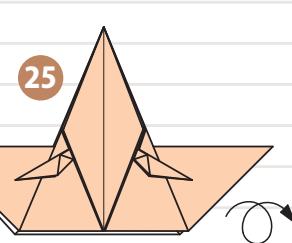


Step 22 in progress.

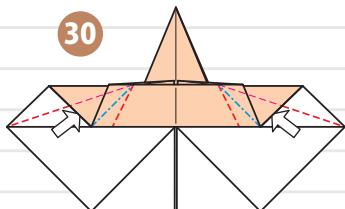




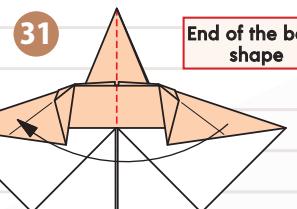
Repeat steps 20 to 23 on the other side as well.



Squash fold from the arrows.

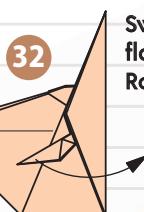


Squash fold from the arrows.

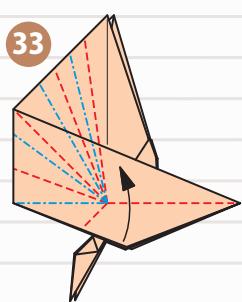


Valley fold along the center.

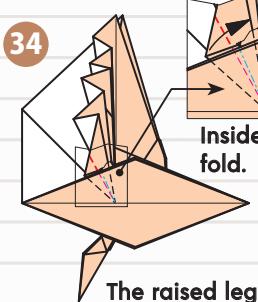
End of the base shape



Swing over the leg flaps at each side. Rotate the model.

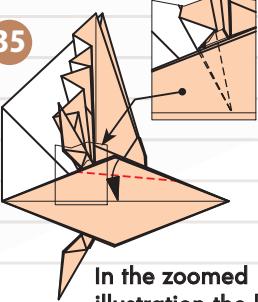


Form the valley folds first and then form pleats.

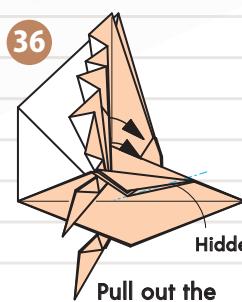


Inside reverse fold.

The raised leg is not shown in step 33.

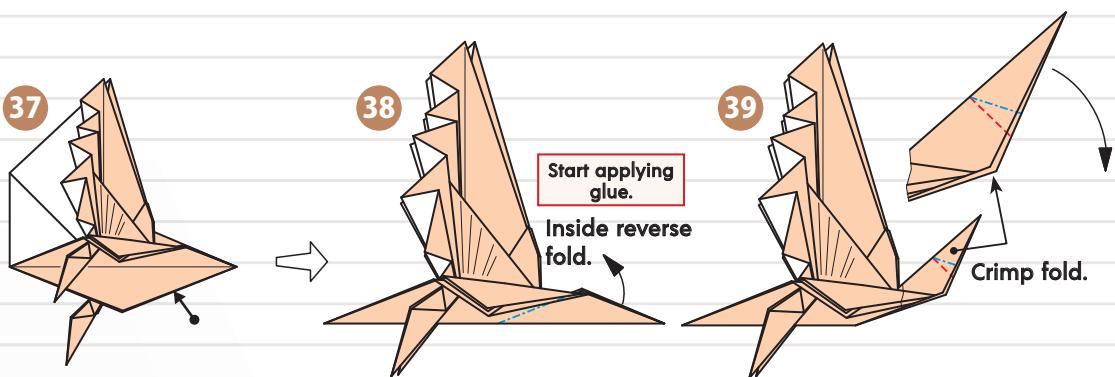


In the zoomed illustration the legs are not shown.

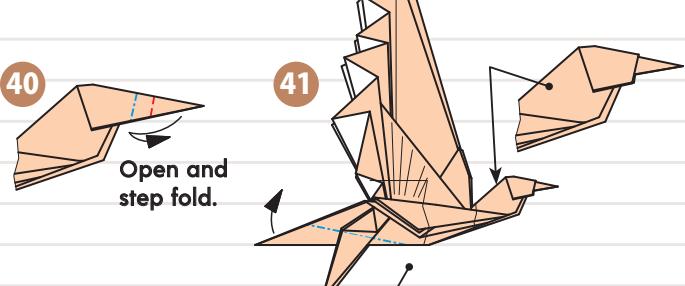


Hidden mountain

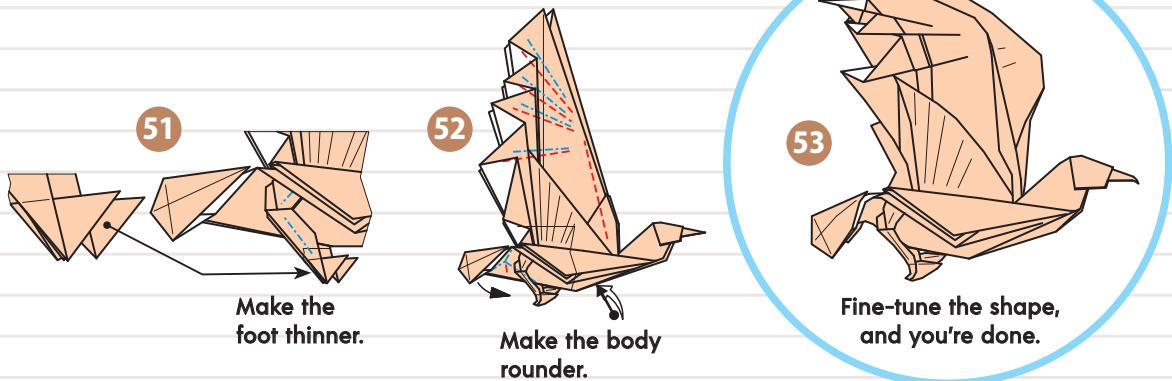
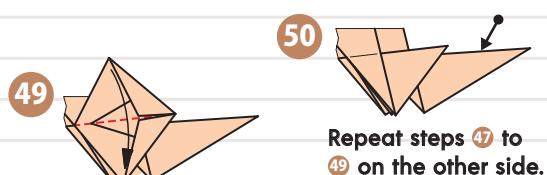
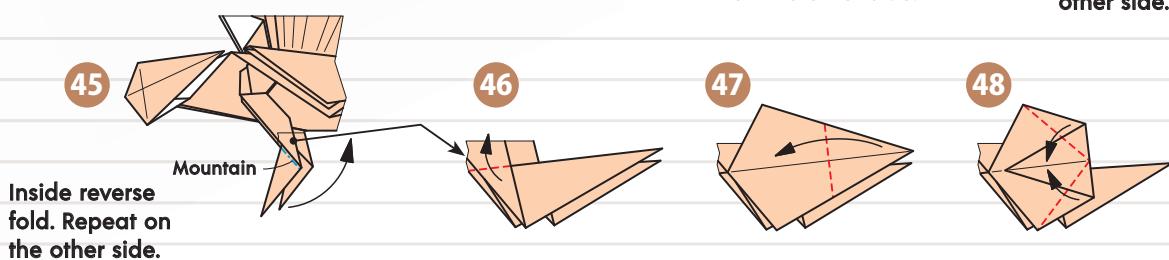
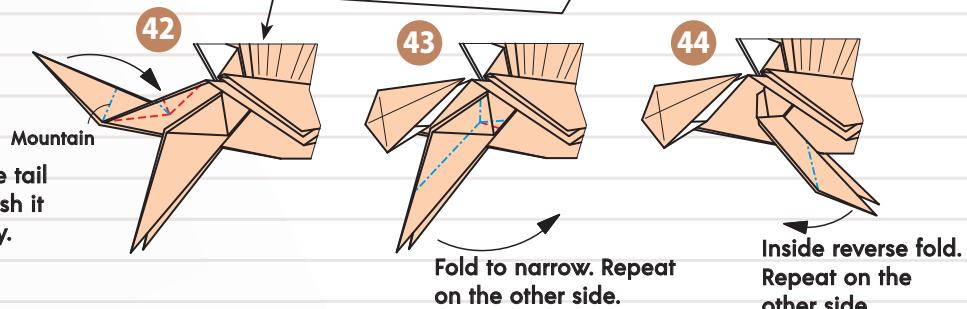
Pull out the fold on top of the wing.



Repeat steps 33 to 36 on the other side.



Spread open the tail layers and squash it around the body.





► Difficulty Rank: ★★★★★

## KINGFISHER

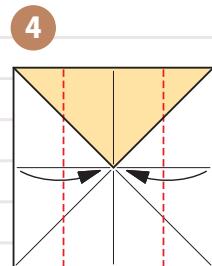
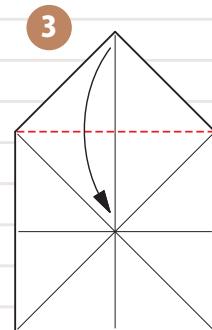
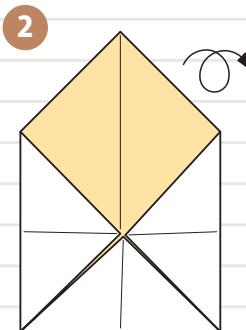
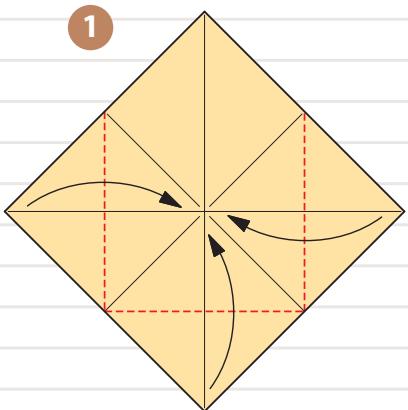
★ Type of paper:

Washi (rough pattern)  
12½ x 12½ inch (32 x 32 cm)  
1 sheet



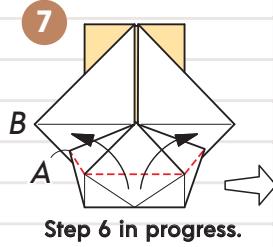
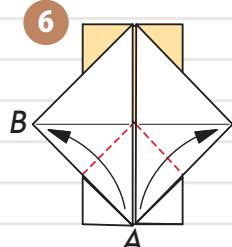
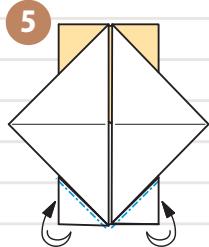
### Tips for folding

The process shown in steps 11 to 16 is essentially the same process as the "Claw fold" from the Sparrow (page 40), although it has a different shape and size. The mountain fold in step 23 is easier to crease if you fold back the triangle on the back side into a valley fold and return. The pentagon shape you fold in steps 27 and 28 is a challenging one of fold, so I recommend following the illustrations closely. Without that process, which forms the two legs, it will be impossible to proceed past step 53, where you will fold the claws. After step 68, in order to make the many small details of the head and the wings stand out, gently tug on the corners while folding them.



Begin with a square creased along the diagonals and the sides. Valley fold 3 corners to the center.

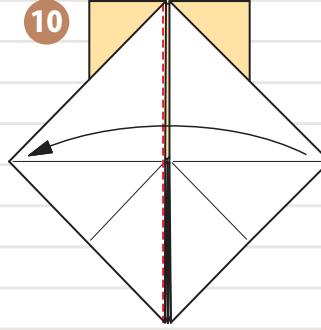
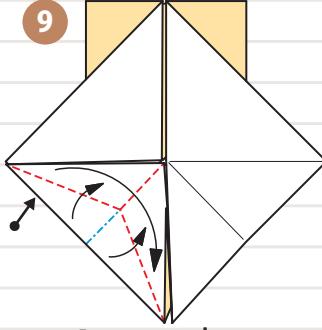
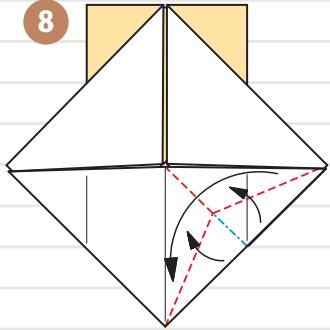
Valley fold the sides to the center, allowing the triangles to flip forward from behind.



Crease and return along the mountain fold lines.

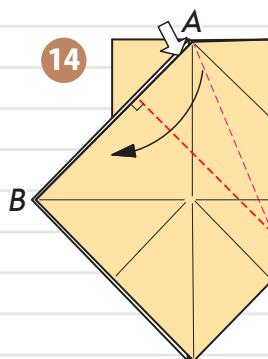
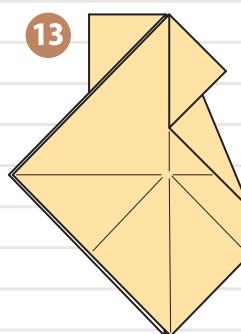
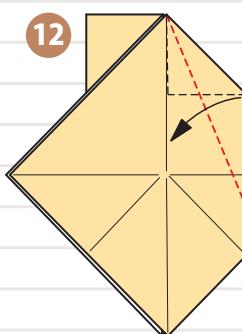
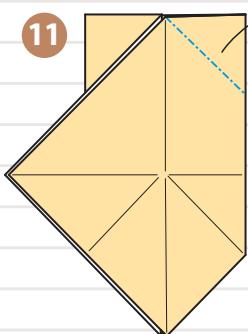
Fold the bottom corners outward, allowing the triangle to flip forward from behind.

Step 6 in progress.



Valley fold down while reverse folding.

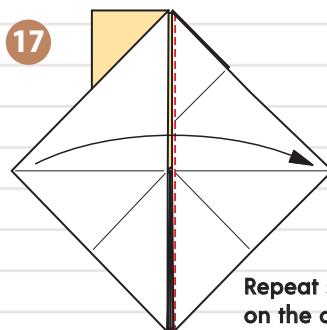
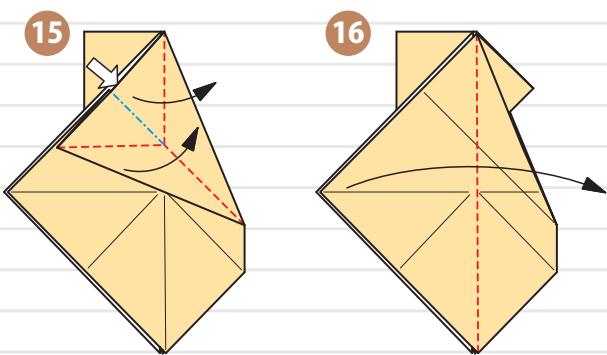
Repeat on the other side.



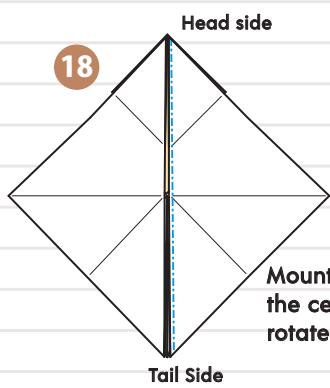
Valley fold, allowing the triangle to swing forward from behind.

Return to step 11.

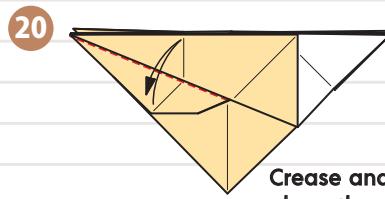
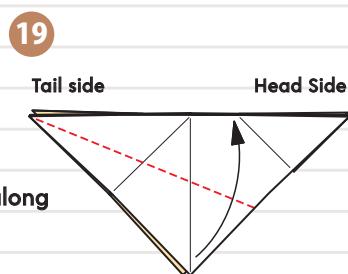
Squash fold. Corner A should end up on top of the A-B line.



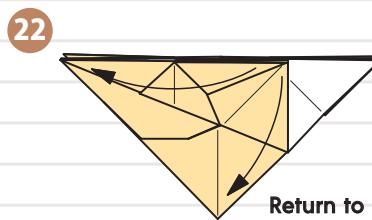
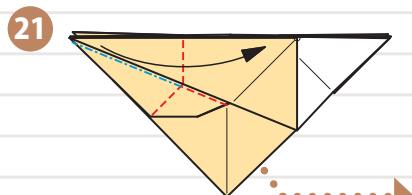
Repeat steps 10 to 16 on the other side, making the sides symmetrical.



Mountain fold along the center and rotate.

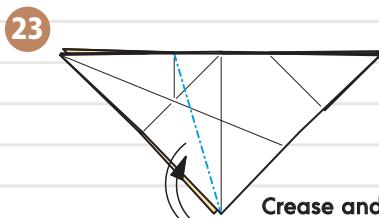


Crease and return along the valley line.

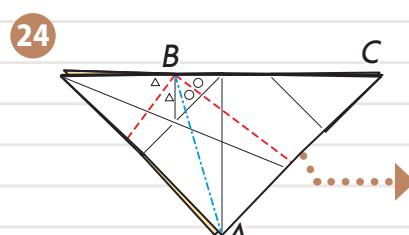


Return to step 19.

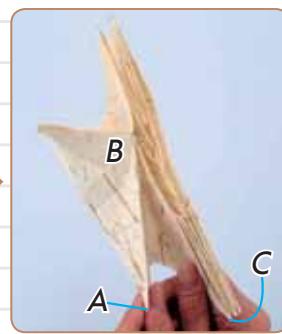
Step 21 in progress.



Crease and return along the mountain line.



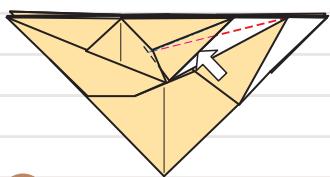
Place corner A on the B-C line, and then fold as shown in step 21.



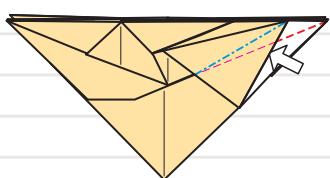
Step 24 in progress.



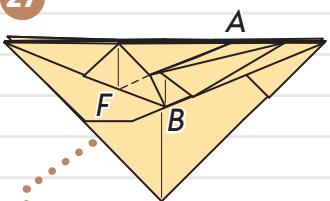
25



26



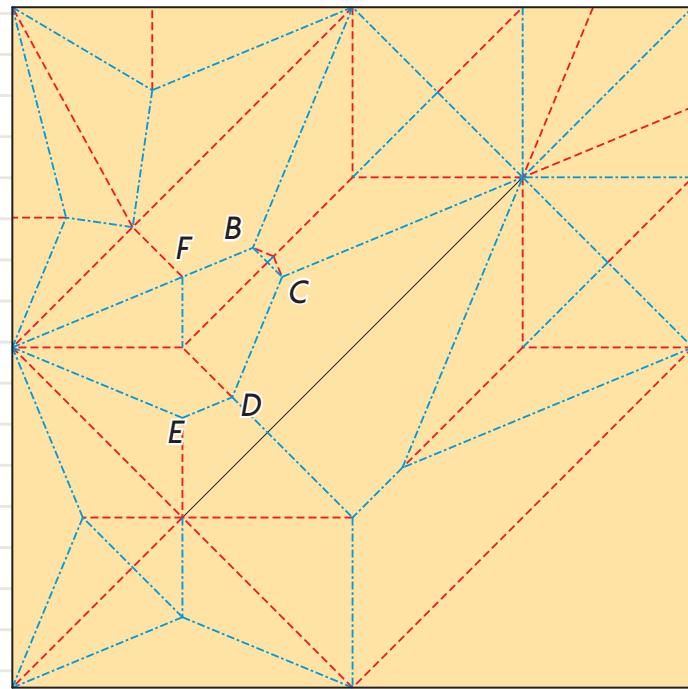
27



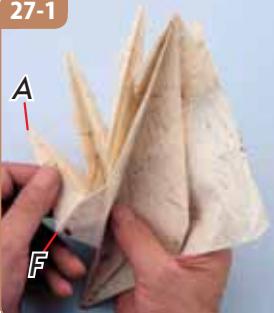
Unwrap the outermost layer, spread it apart, and sink it.

## The Kingfisher crease pattern

(※ through step 27)

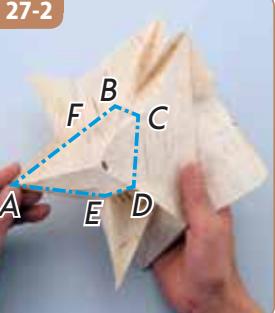


27-1



Focus on the mountain line A-F and start spreading.

27-2



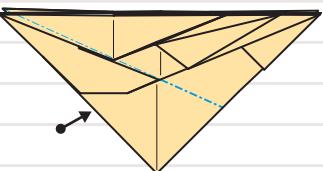
Mountain fold all the sides of the pentagon, which includes the A-B line (consult the crease pattern above).

27-3

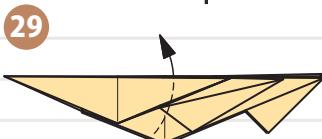


Sink the pentagon.

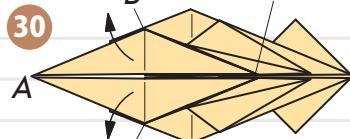
28



Repeat steps 19 to 27 on the other side.

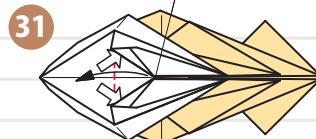


29



30

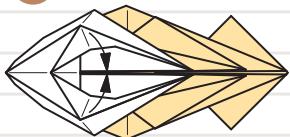
Partially open the ABC triangles.



31

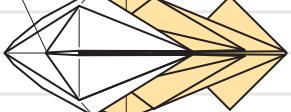
Step 30 in progress. Fold back corner A.

32



Flatten the inner layers.

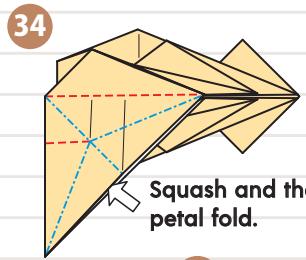
33



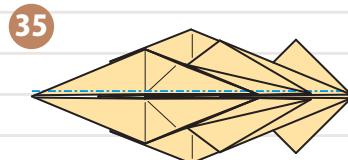
Spread the opening more and pull the A corner outward.



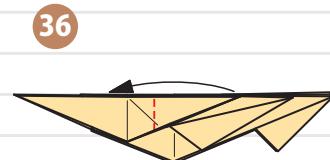
What it looks like when the corner is pulled outward.



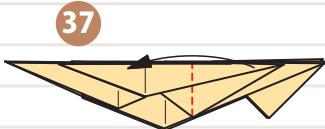
Squash and then  
petal fold.



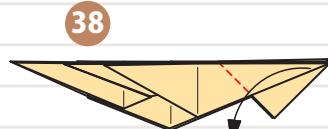
Mountain fold  
along the center.



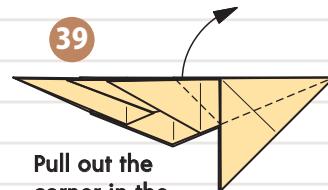
Repeat on the  
other side.



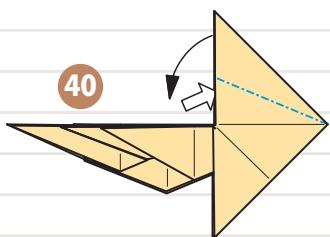
Repeat on the  
other side.



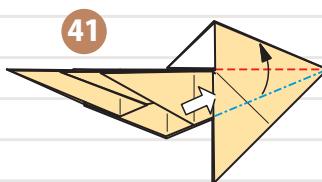
Repeat on the  
other side.



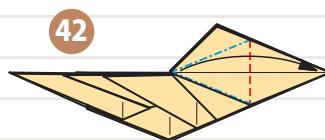
Pull out the  
corner in the  
middle.



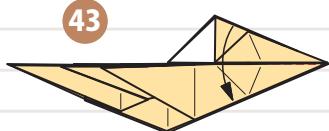
Inside reverse fold.



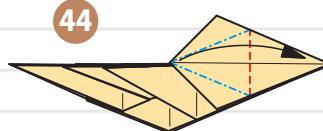
Repeat on the  
other side.



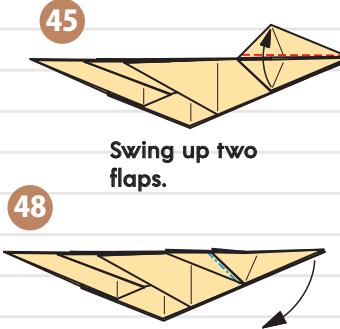
Petal fold (page 10).  
Repeat on the other  
side.



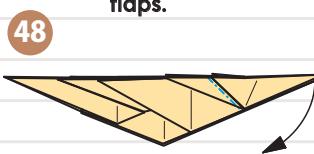
Repeat on the  
back side.



Valley fold down two  
flaps at each side.

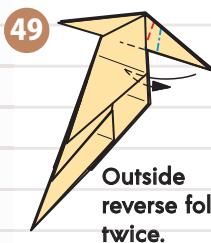


Swing up two  
flaps.

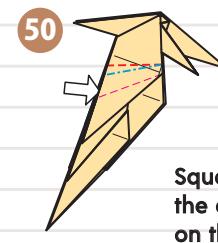


Inside reverse  
fold. Rotate the  
model.

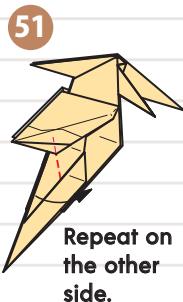
End of the base  
shape



Outside  
reverse  
fold  
twice.



Squash fold from  
the arrow, repeat  
on the other side.



Repeat on  
the other  
side.

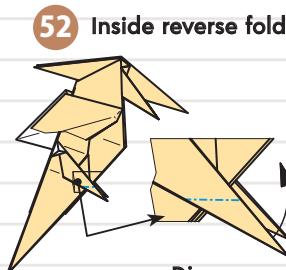
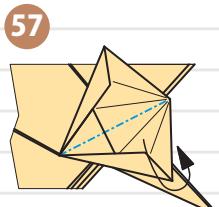
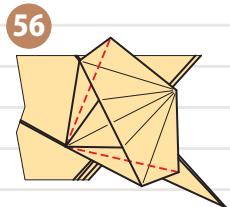
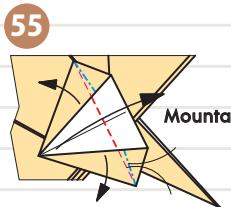
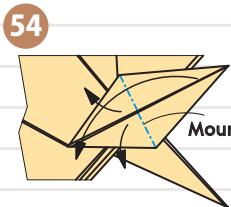
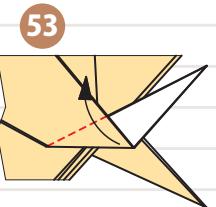
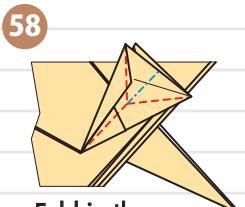


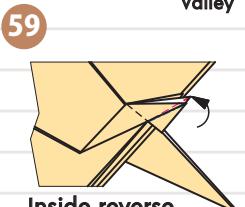
Diagram omits  
part of the  
wings.



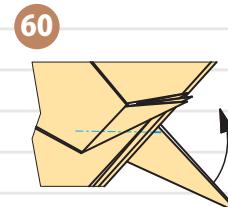
Start applying glue.



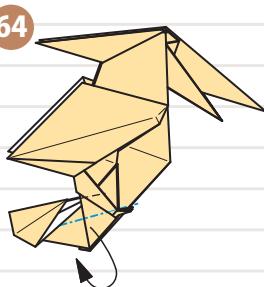
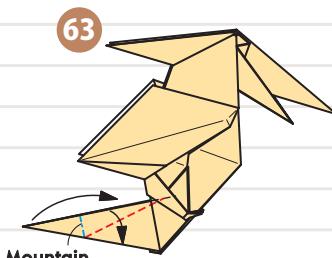
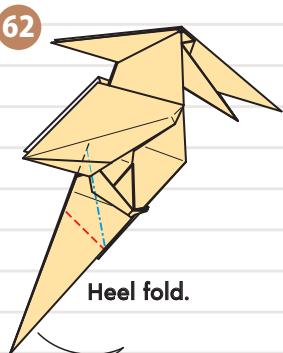
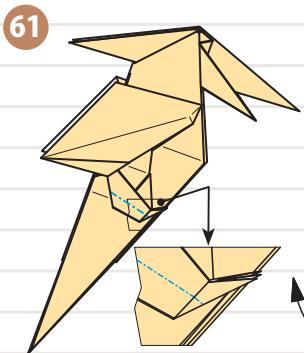
Fold in the same way on the back side too.



Inside reverse fold.

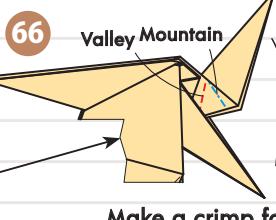
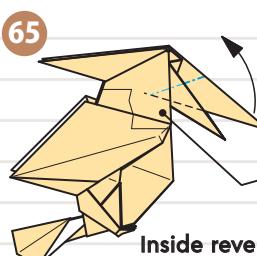


Repeat steps 50 to 59 on the other side.

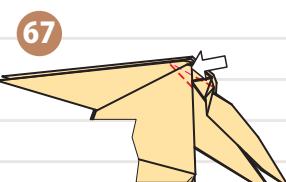


Heel fold.

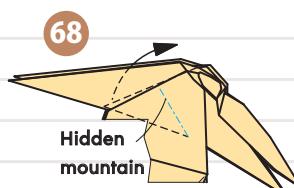
Tuck inside.  
Repeat on the other side.



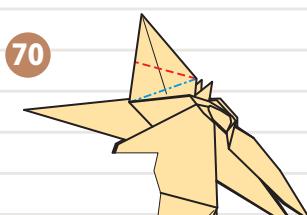
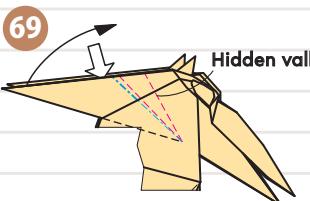
Make a crimp fold.



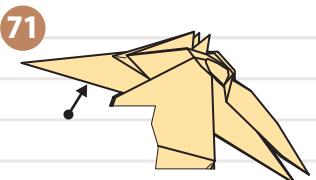
Spread from the arrow and fashion it into the eye.



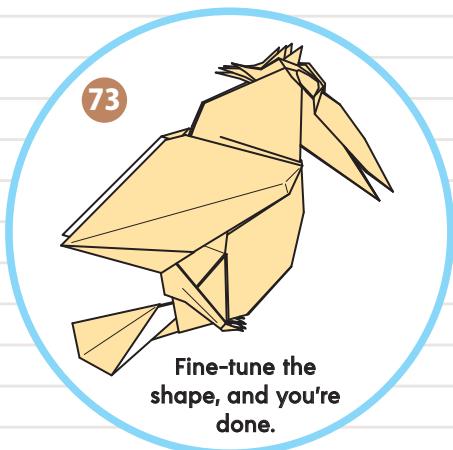
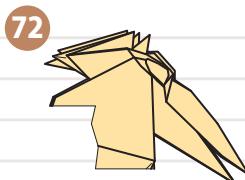
Shift and fold the two small triangles hidden inside the head.



Squash fold.



Repeat steps 69 to 70 on the other side.



Fine-tune the shape, and you're done.



► Difficulty Rank: ★★★★☆

## EAGLE

★ Type of paper:

Washi (stain dyed sheet)  
12½ x 12½ inch (32 x 32 cm)  
1 sheet



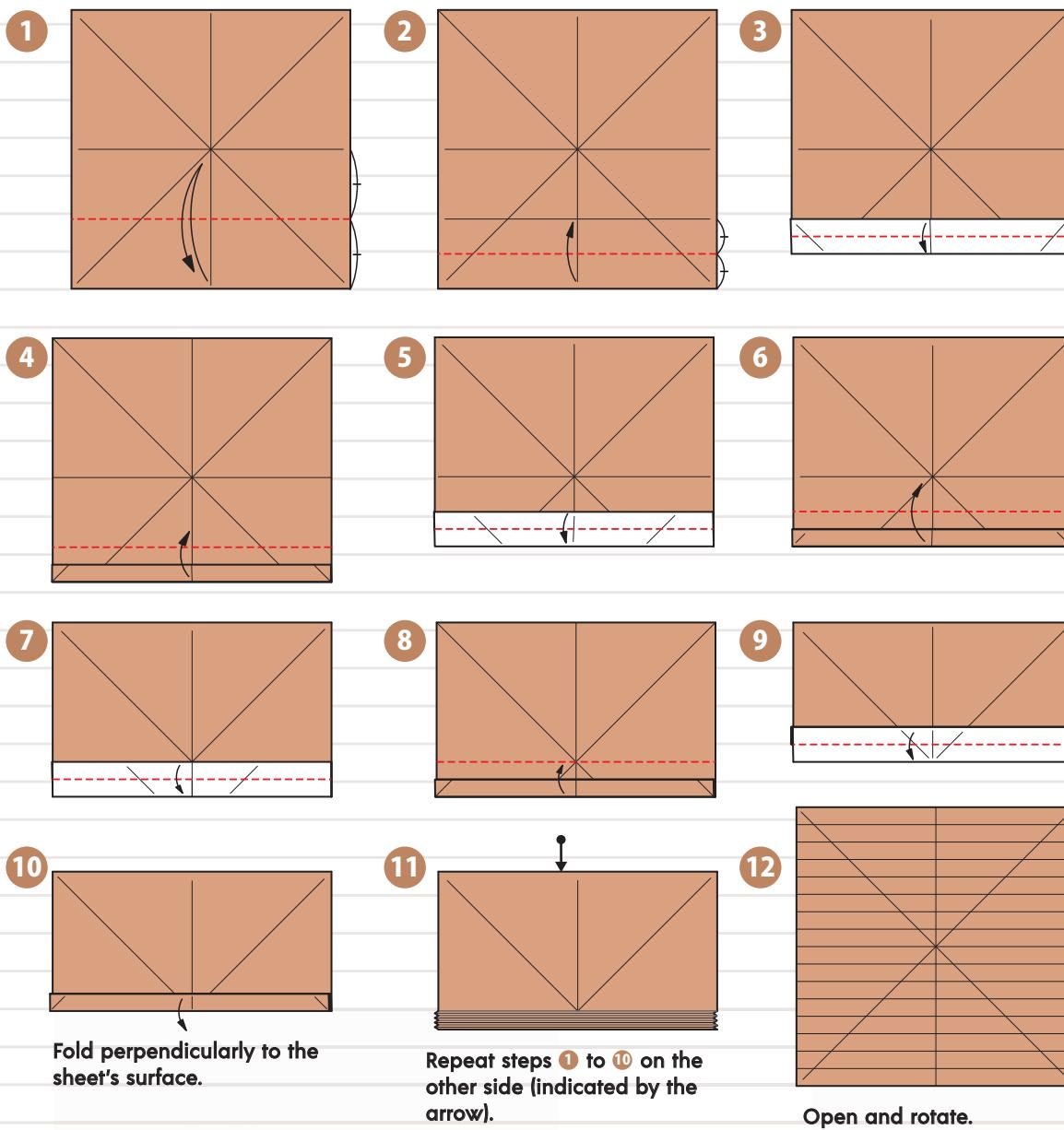
### Tips for folding

You will use a *16-equal-parts pleat fold\** in this model. This is an especially challenging project among those in this book, but if you manage to get through the first half of the difficult folds, the second half is relatively simple, and you can finish it with ease. While maintaining the 16 folds, make sure to not accidentally create other creases. Since the three corners made in step 32 are quite thick, you absolutely need to use a type of paper that is as thin and durable as possible. The finished product should have a valley fold in the front, similar to the seagull (page 44, although not shown there), which allows the eagle's wings to appear more voluminous from the front.

\* 16-equal-parts pleat fold:  
A pleat fold made of 16 equal folds. In this book, it's also used for the Chinese Bird-Lizard (page 98).



EAGLE

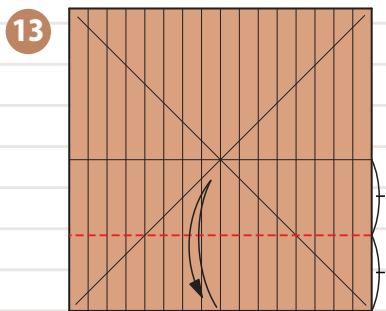


Fold perpendicularly to the sheet's surface.

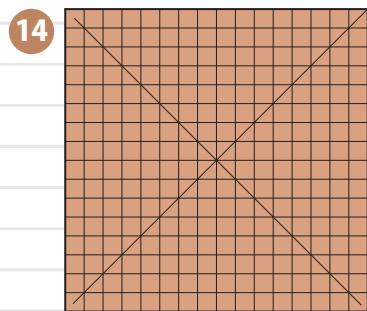
Repeat steps 1 to 10 on the other side (indicated by the arrow).

Open and rotate.

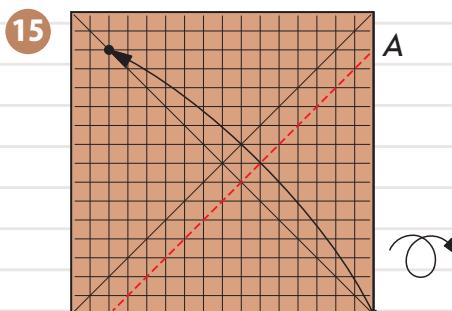




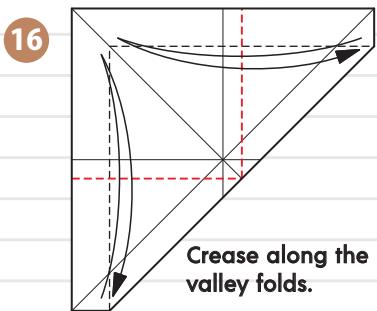
Repeat steps ① to ⑪ on this side as well.



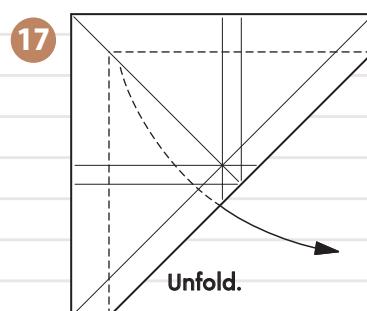
The 16-equal-parts pleat fold is done.



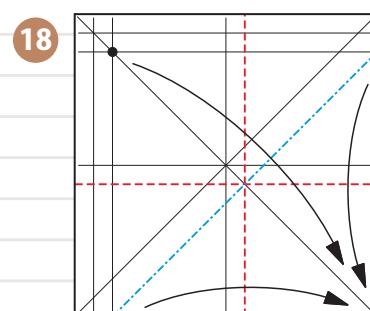
Fold from point A, 2 squares away from the corner of the sheet, then turn over. (The 16-equal-parts pleat fold creases will be omitted from here on.)



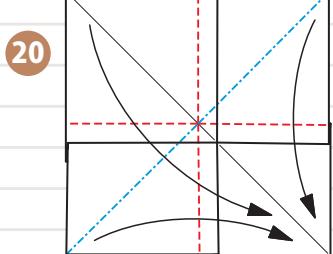
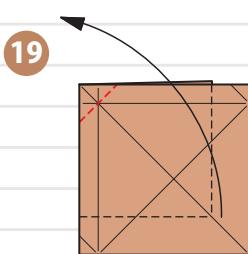
Crease along the valley folds.



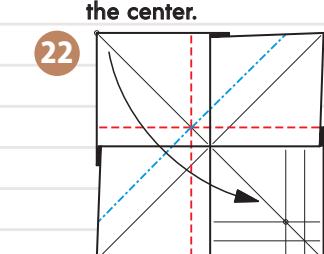
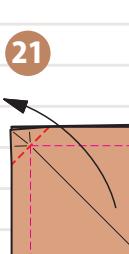
Unfold.



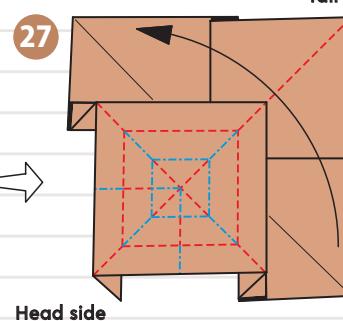
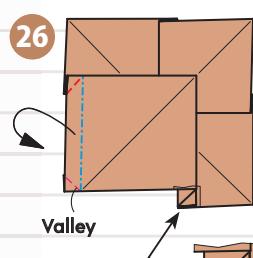
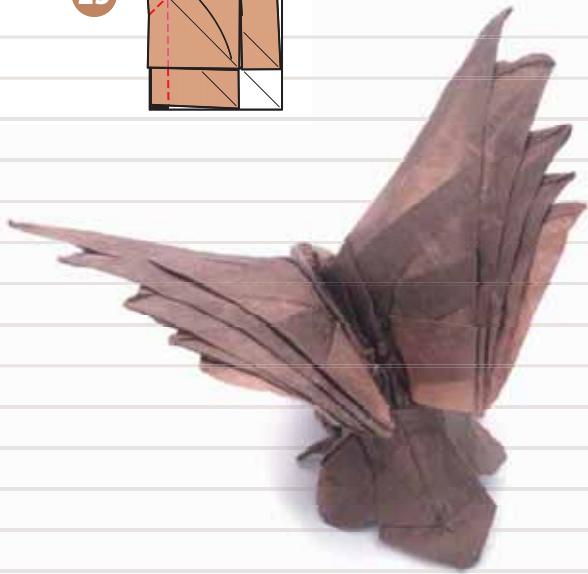
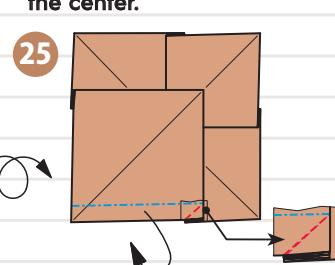
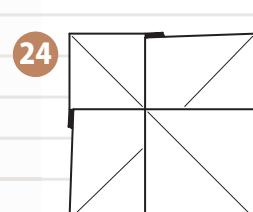
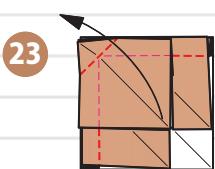
Fold a Preliminary Base shifted at 2 squares from the center.



Fold the Preliminary Base.



Fold a Preliminary Base shifted at 1 square from the center.



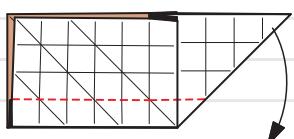


EAGLE



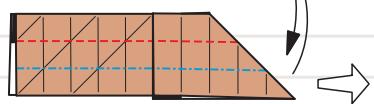
The Eagle crease pattern (※ through step 31)

28



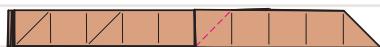
Outside reverse fold.

29

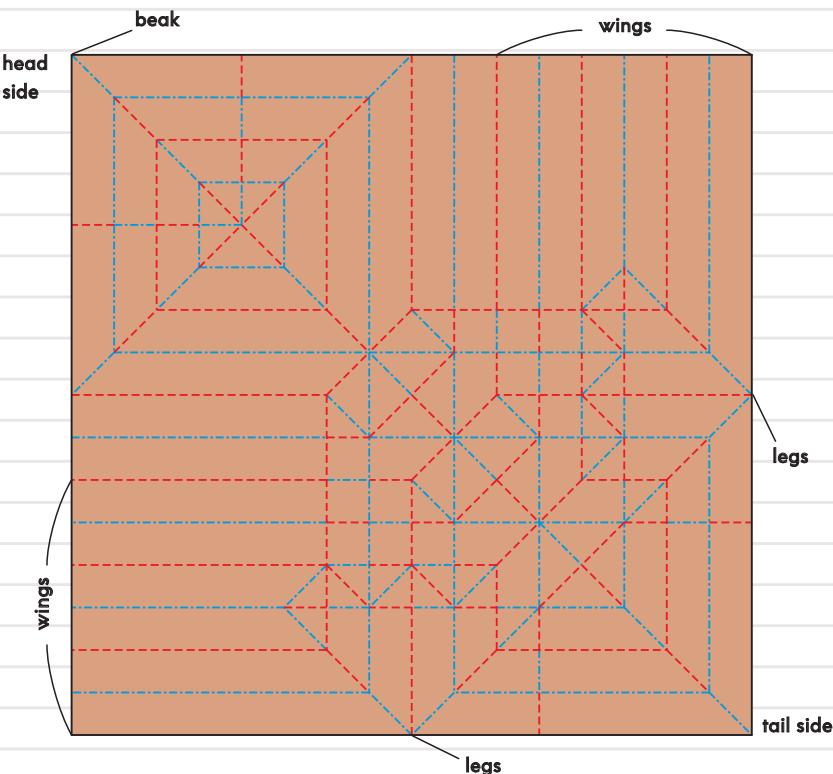


Outside reverse fold twice.

30



- Add a mountain fold crease at 45 degrees between square 8 and 9 (counting from the left). Repeat on the other side.



30-1



Open while checking for square 8 and 9 (counting from the left).

30-2



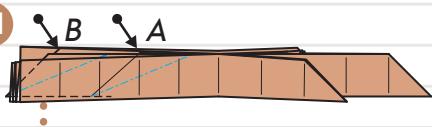
Add the crease at 45 degrees.

30-3



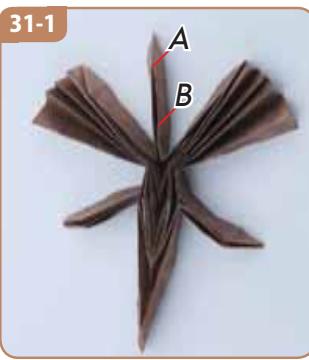
Fold while pulling on the mountain line.

31

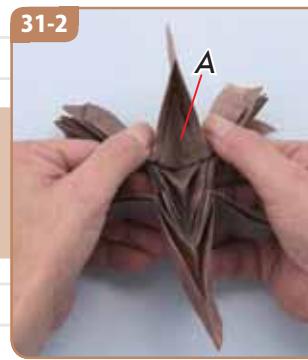


End of the base shape

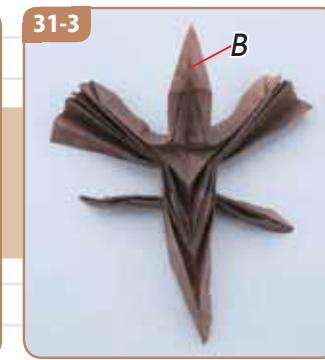
Squash corners A and B.



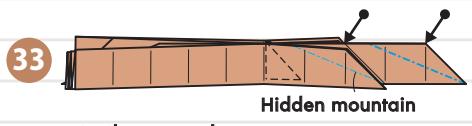
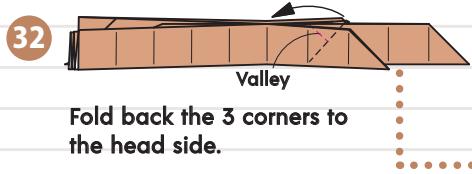
View of step 31 from above.



View after squashing corner A.

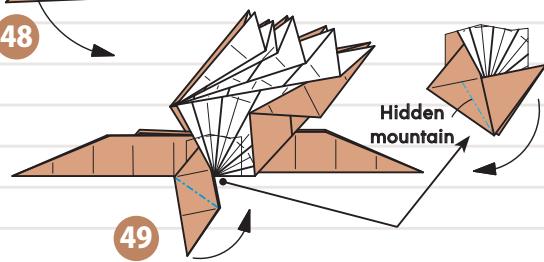
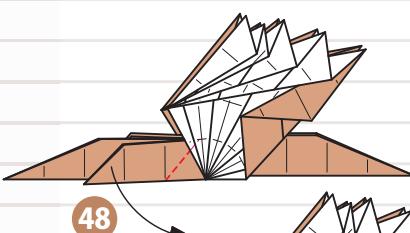
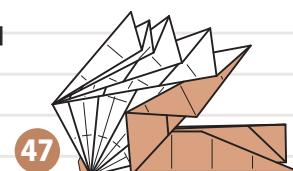
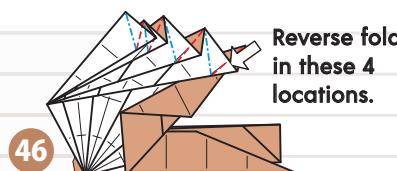
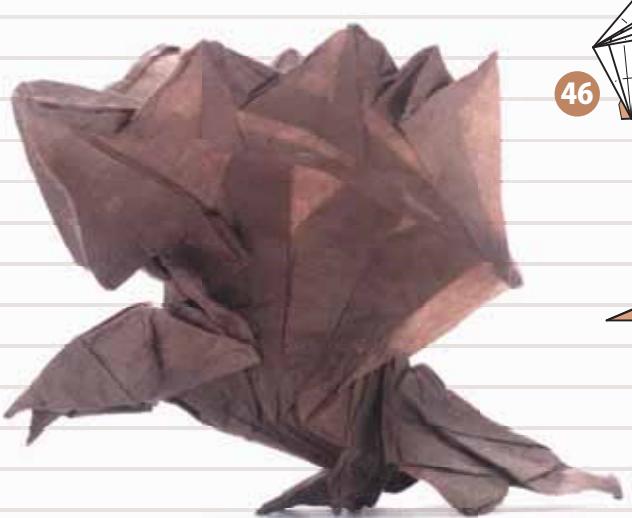
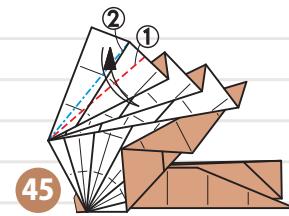
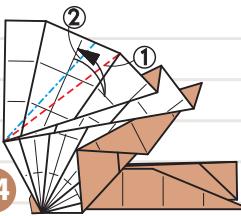
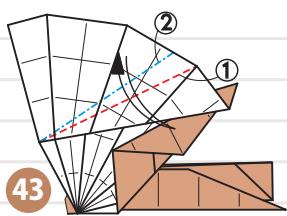
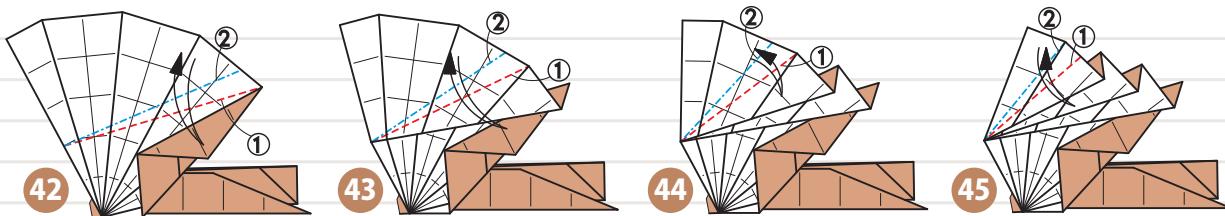
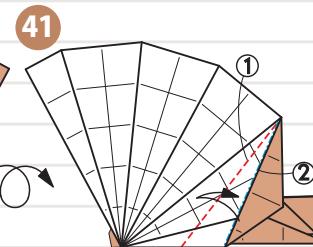
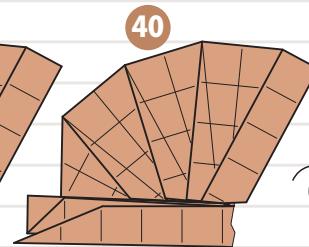
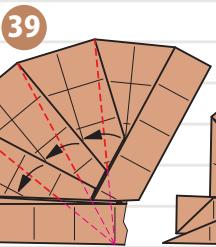
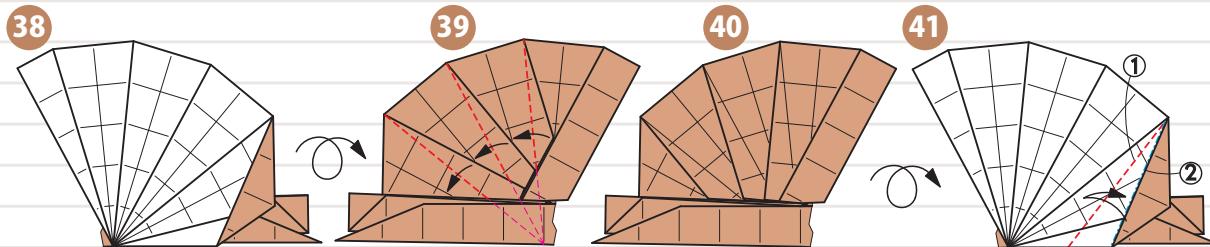
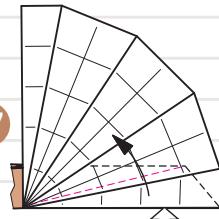
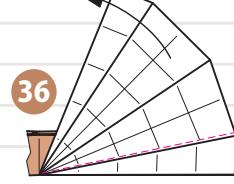
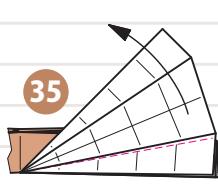
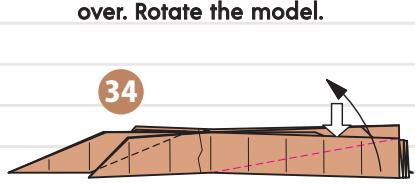


View after squashing corner B.



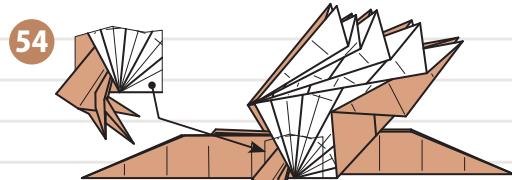
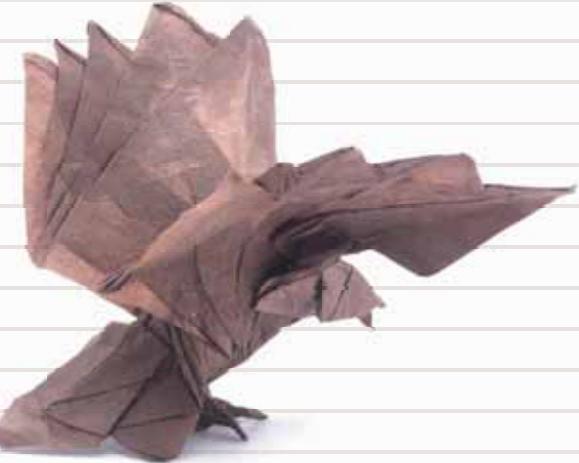
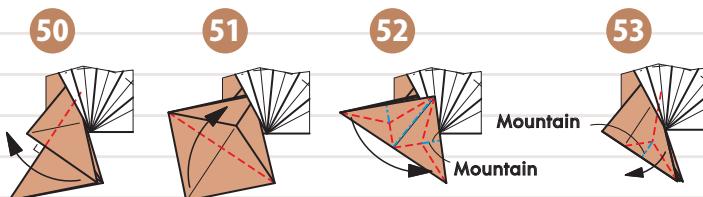
After folding back the first of the 3 corners.

After folding back all 3 corners.

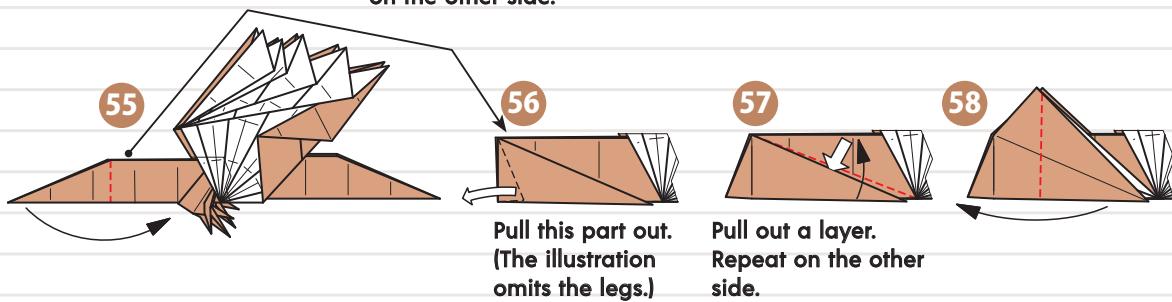




EAGLE

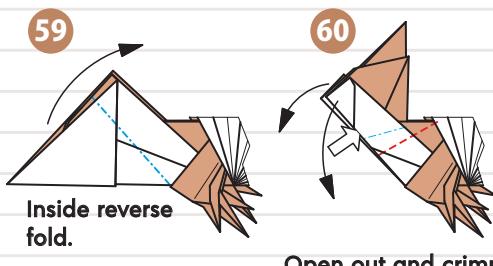


Repeat steps 48 to 53  
on the other side.



Pull this part out.  
(The illustration  
omits the legs.)

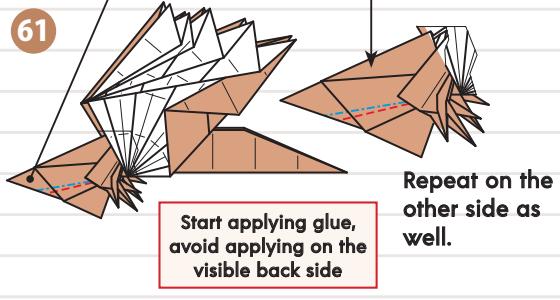
Pull out a layer.  
Repeat on the other  
side.



Inside reverse  
fold.

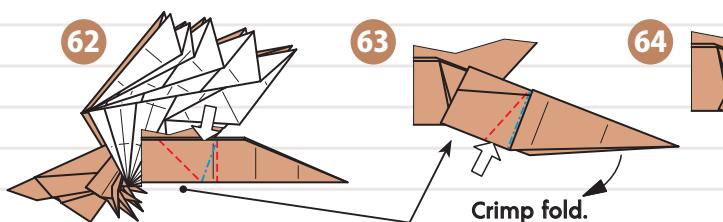


Open out and crimp  
down.



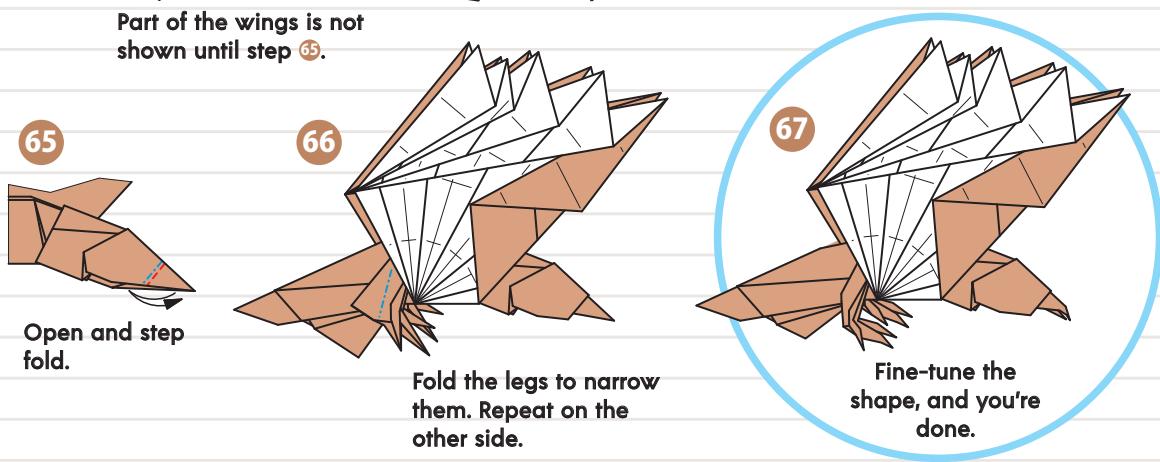
Start applying glue,  
avoid applying on the  
visible back side

Repeat on the  
other side as  
well.



Part of the wings is not  
shown until step 65.

Crimp fold.



Open and step  
fold.

Fold the legs to narrow  
them. Repeat on the  
other side.

Fine-tune the  
shape, and you're  
done.



► Difficulty Rank: ★★★☆☆

## LOCUST

★ Type of paper:

Washi (rough texture)  
7 x 7 inch (18 x 18 cm)  
2 sheets



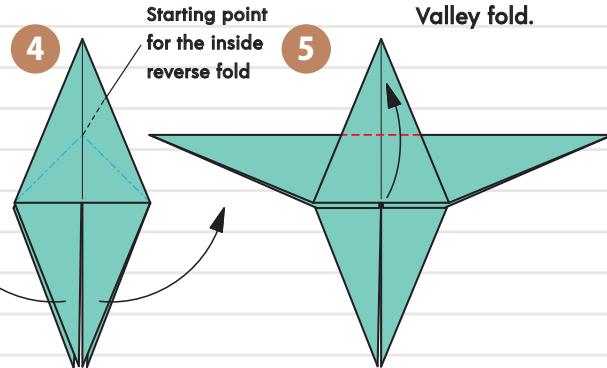
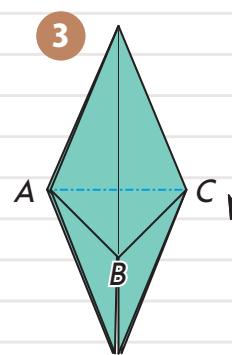
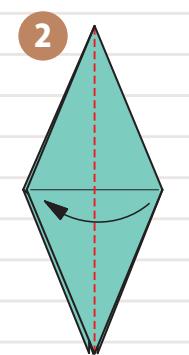
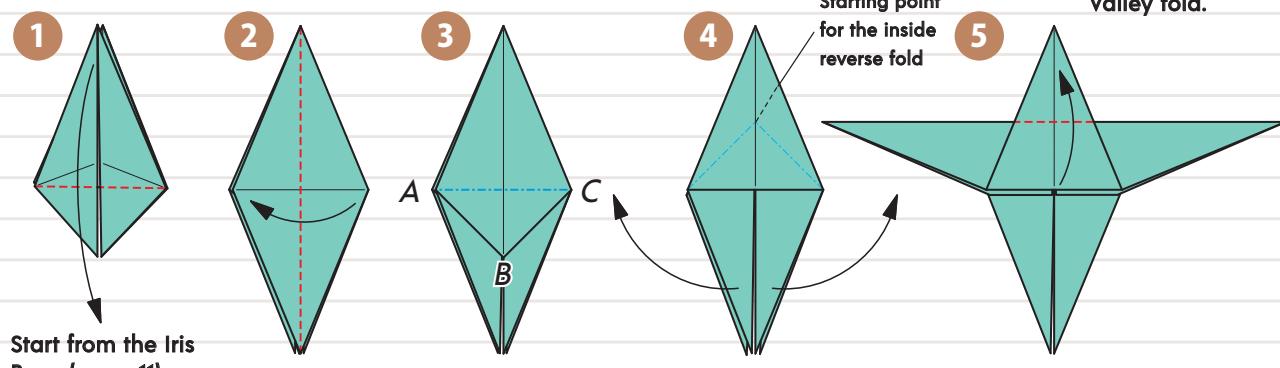
### Tips for folding

This model is made using two sheets that begin with the Iris Base (page 11). Although it can be folded using only a single sheet, that would force us to make six legs with just one sheet, which ruins the balance of the size of the legs (as they cannot all be *corner appendages*\*). However, a model made from two sheets is relatively simple and only requires about half the amount of folding. The four legs created in the second half of the folding process are thinner and more elegant. When you raise the legs in step 10, the process is the same as when arranging the wings of the Swallow (page 20), where a part of the body is folded back. In order to maintain the shape of the folded legs, you should apply glue. Be sure to position the legs at the correct angles.

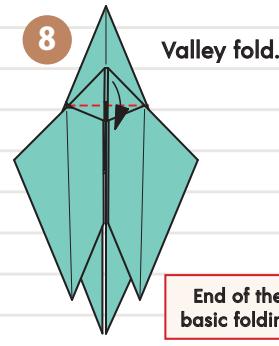
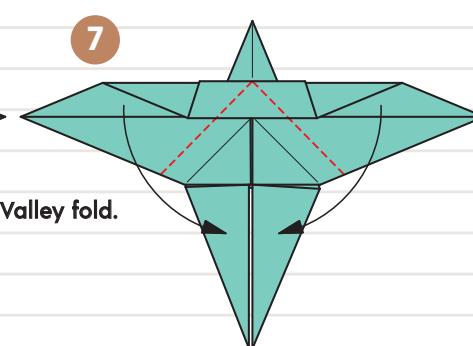
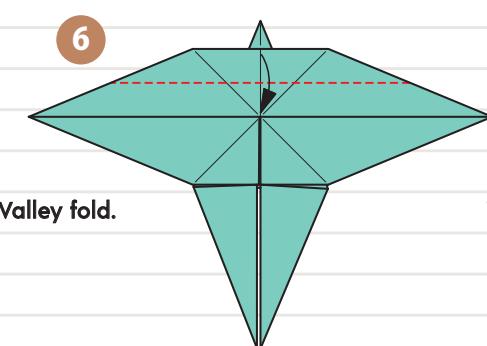
\* Corner Appendages:  
Corner appendages are made by narrowing the four corners of a square. It's relatively easy to fold limbs using the corners.



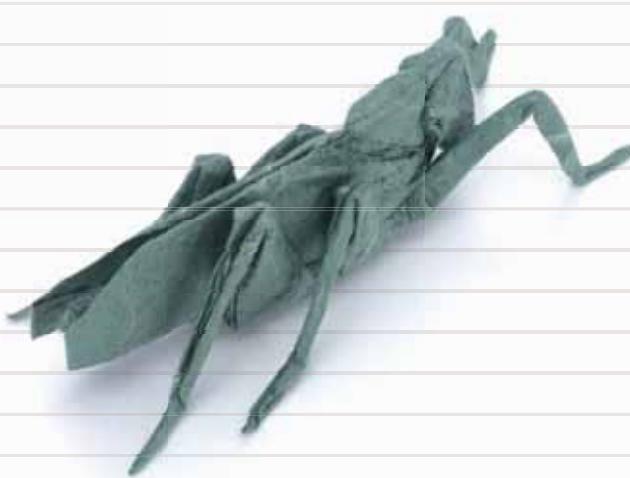
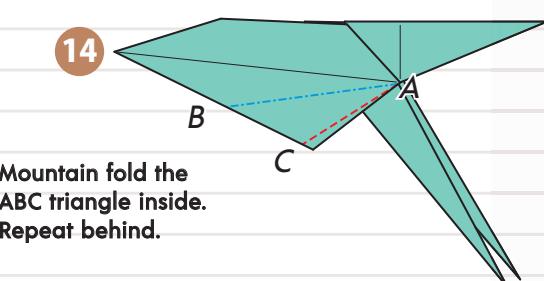
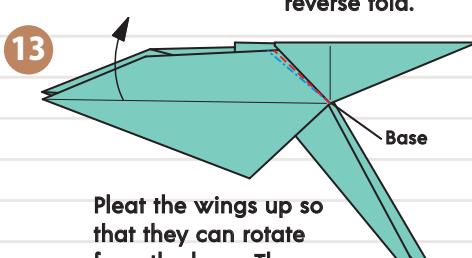
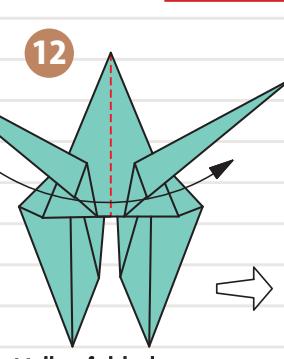
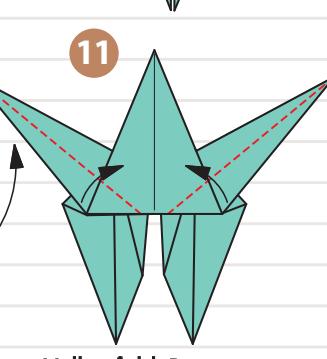
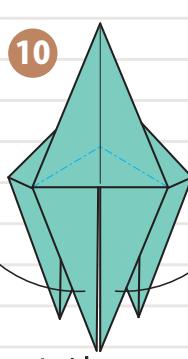
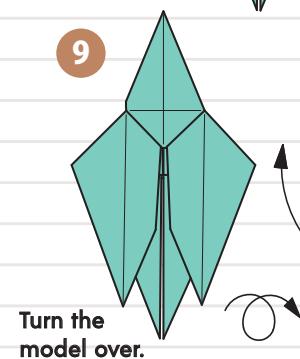
## Folding the Front Half

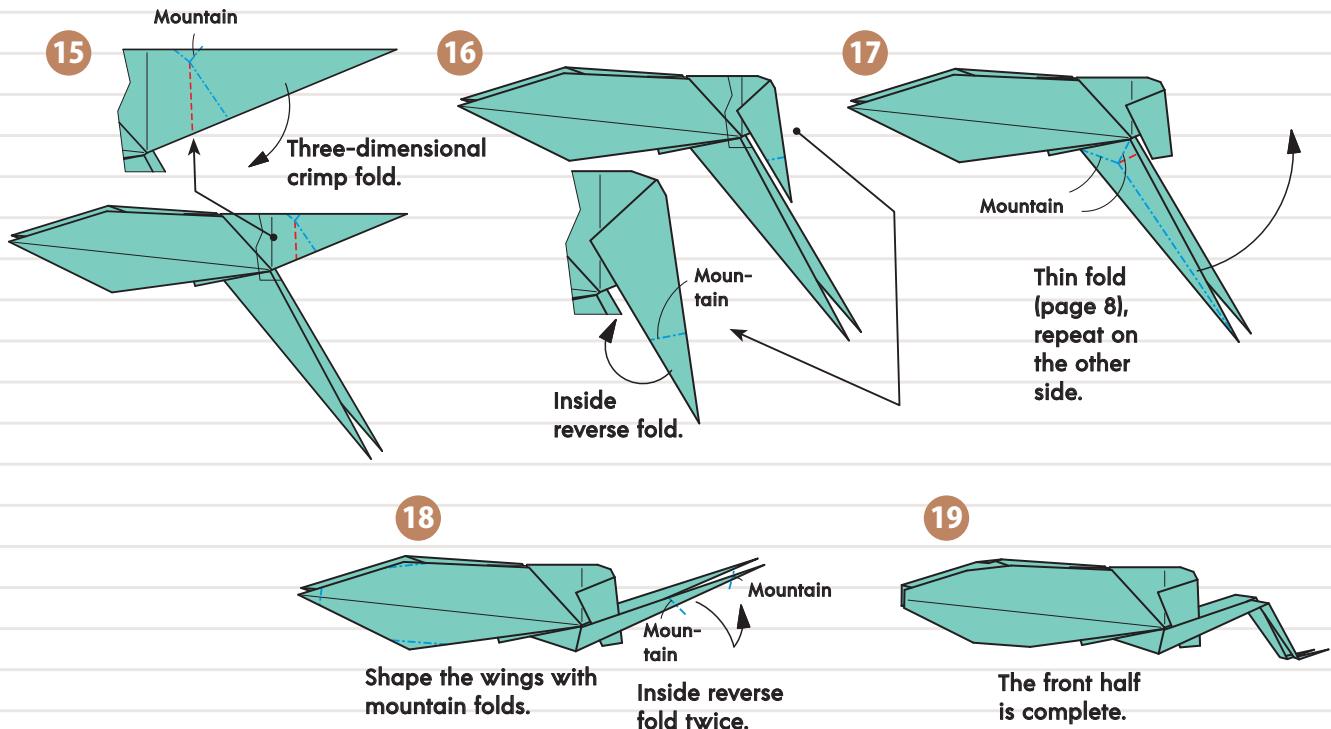


Start applying glue.

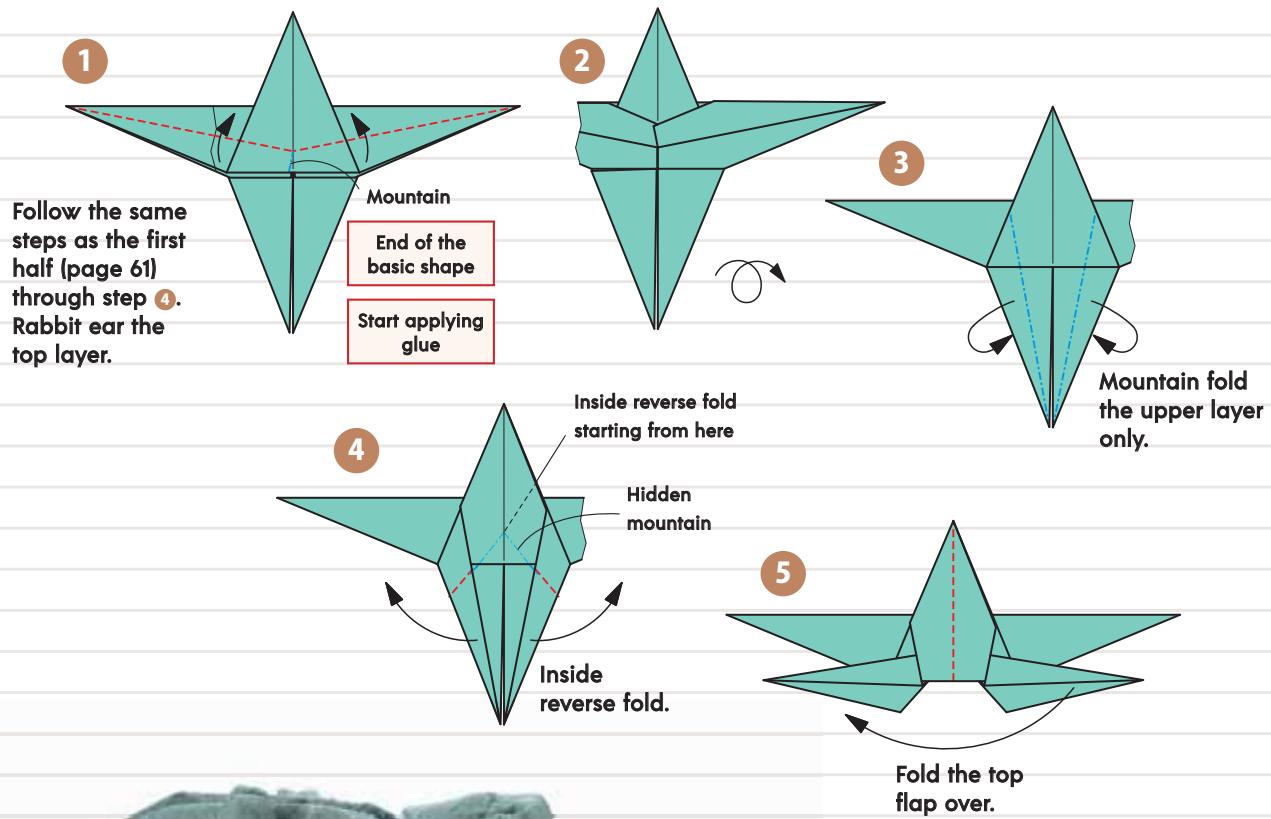


End of the basic folding



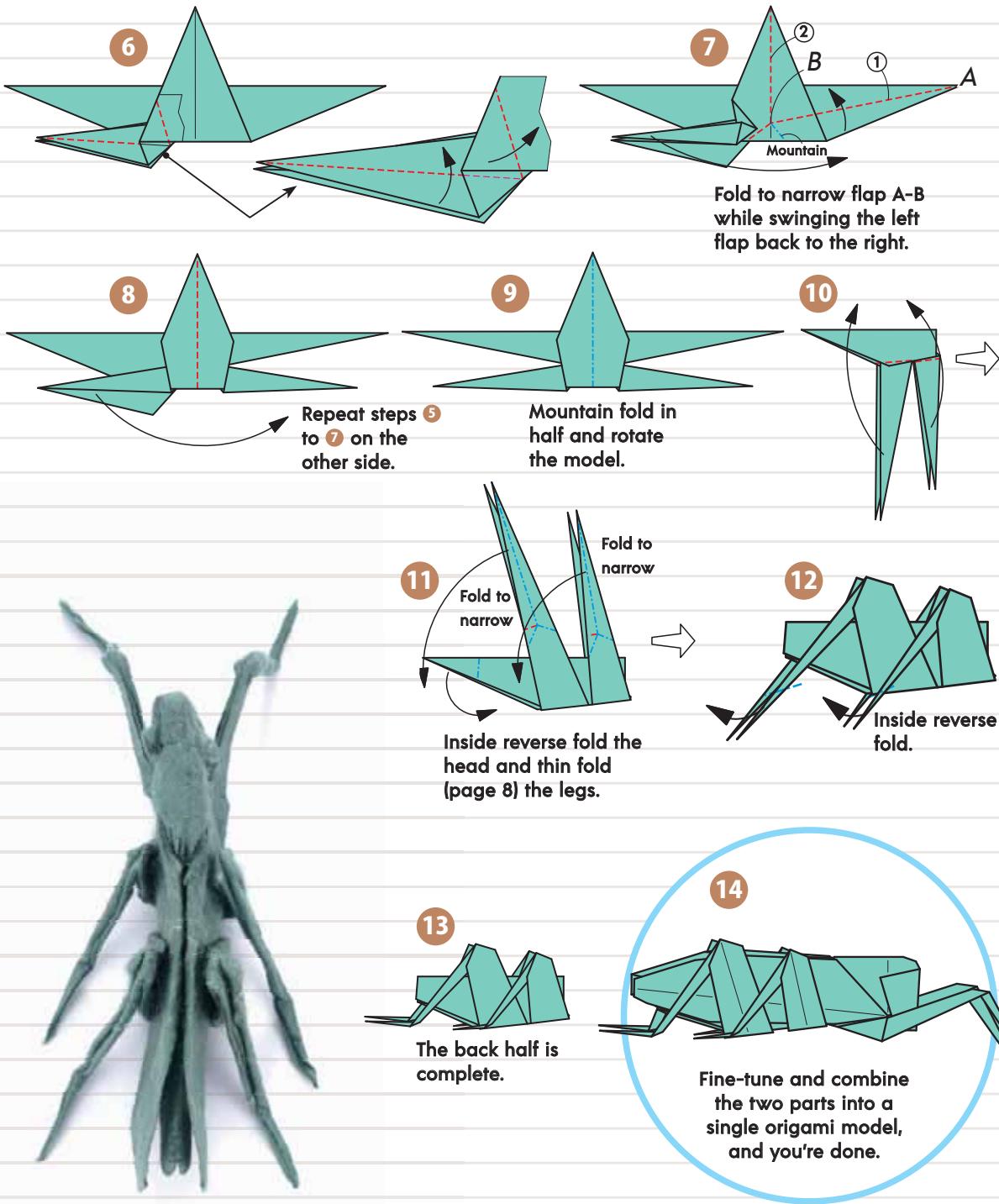


### Folding the Back Half





LOCUST





► Difficulty Rank: ★★★☆☆

## BUTTERFLY

★ Type of paper:

Washi (stain dyed sheet)  
8½ x 8½ inch (22 x 22 cm)  
1 sheet

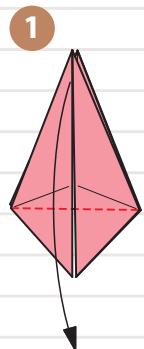


### Tips for folding

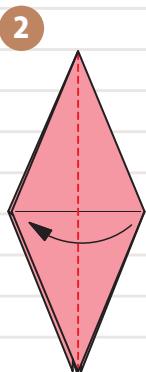
Start folding from the Iris Base (page 11). If you want to apply glue, start after the squashing process in step 8. To make the antennae part thinner and appear to come out of the head, I suggest applying glue. To arrange it more realistically, I recommend making the center line a mountain fold in step 19 to make the wings appear as if they were coming out from below the body. In step 3, it is possible to replace the Iris Base with a Frog Base (page 10), but I prefer to use the Iris Base—it seems easier to fold the butterfly through this base.



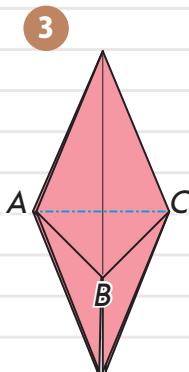
Start from the Iris Base (page 11) ➤



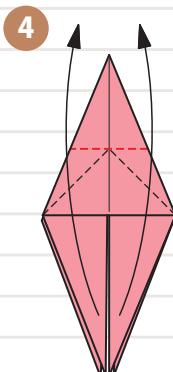
**Valley fold down.** Repeat this fold on the other 3 flaps.



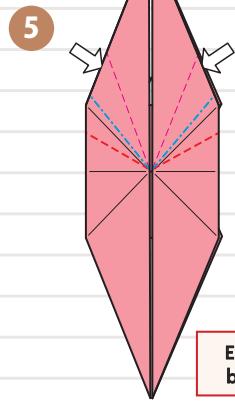
**Swing a flap over on the front and the back.**



**Hide the ABC triangle inside.** Repeat on the remaining 3 flaps.

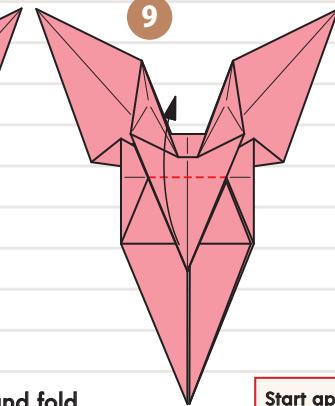
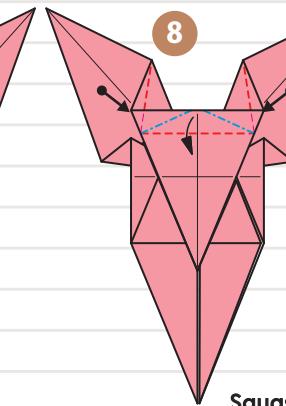
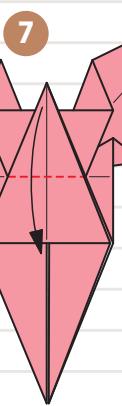
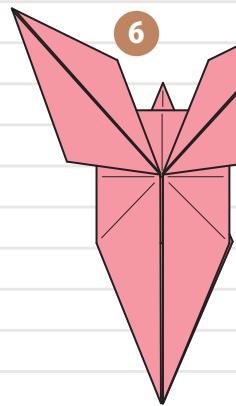


↑



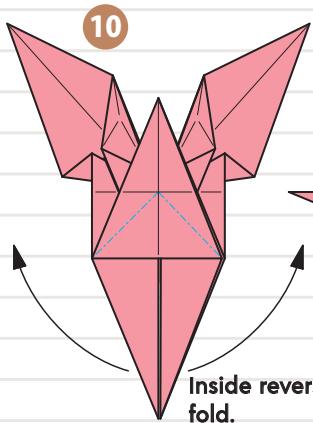
**Squash fold from the arrows.**

**End of the basic fold**

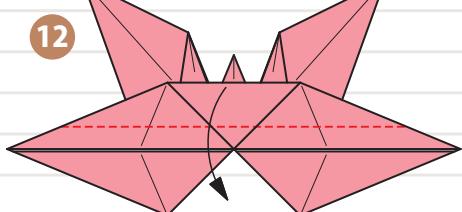
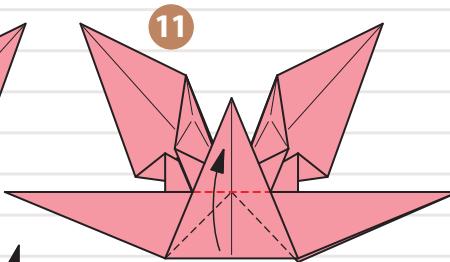


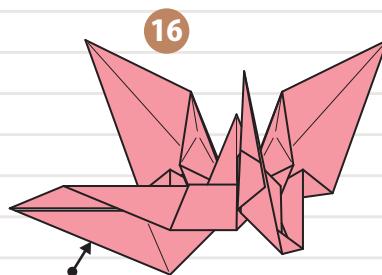
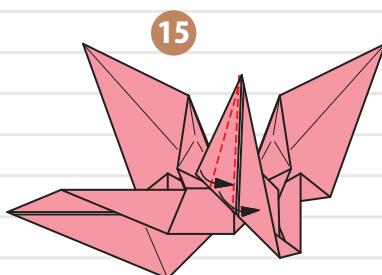
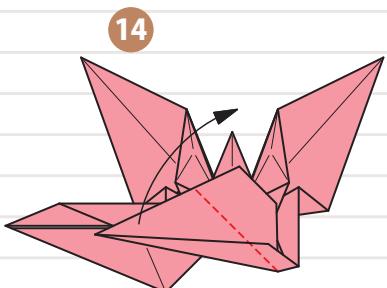
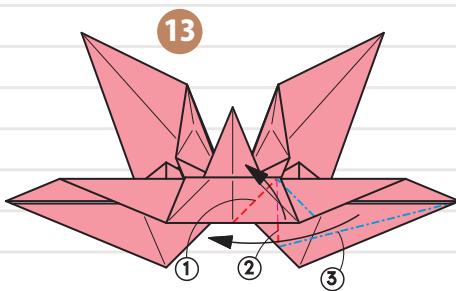
**Squash and fold where indicated.**

**Start applying glue**

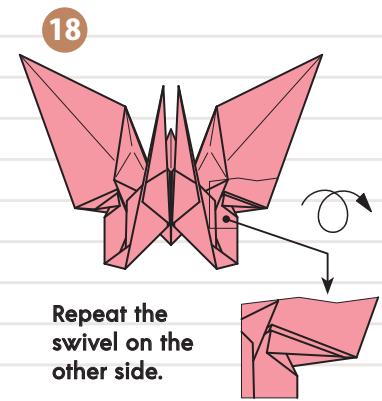
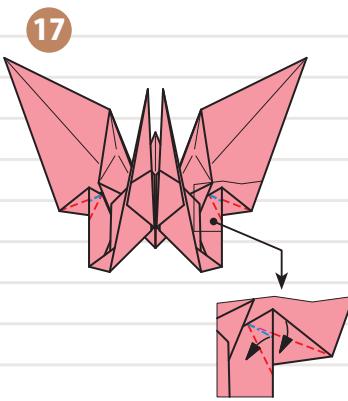


**Inside reverse fold.**

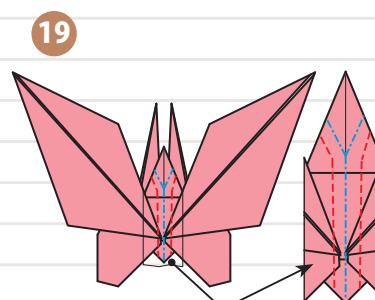




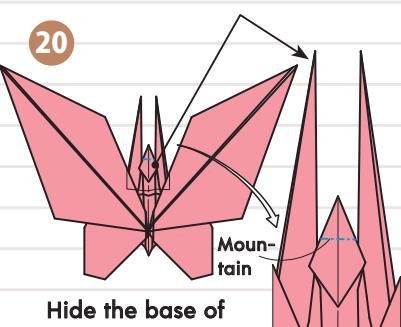
Repeat steps 13 to 15  
on the other side.



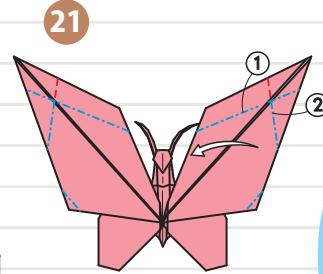
Repeat the  
swivel on the  
other side.



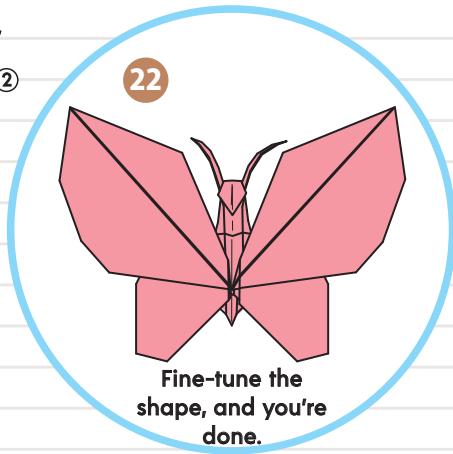
Pleat along the  
center, and squash  
the tip, pulling the  
wings inward.



Hide the base of  
the antennae in the  
body and make  
their tips thin and  
curved.



Shape the wings  
with mountain  
folds.



Fine-tune the  
shape, and you're  
done.



► Difficulty Rank: ★★★☆☆

## STINK BUG

★ Type of paper:  
Washi (stain dyed sheet)  
7 x 7 inch (18 x 18 cm)  
1 sheet



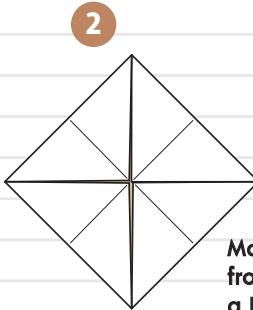
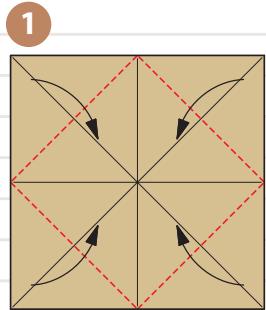
### Tips for folding

Although stink bugs may not be very popular insects, they bear various interesting patterns on their backs, and some of them even resemble human faces.

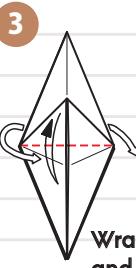
For this model, the layer reforming fold (page 9) is repeated four times, resulting in what is called the Four Cranes Base. Once the base is complete, there will be 8 outside corners to work with.

Since there are squash folds in step 10, don't apply any glue until after that point. The finished origami looks more realistic when the legs are lower than the body and the head is rounded.

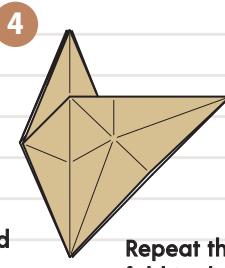
※ Four Cranes Base:  
An relatively uncommon base  
made from a single sheet  
folded into four crane shapes.  
(See step ⑧.)



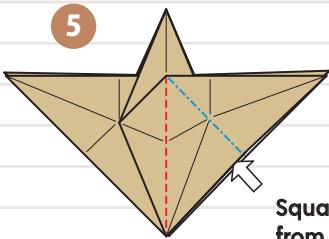
Make this side the front, and then fold a Frog Base.



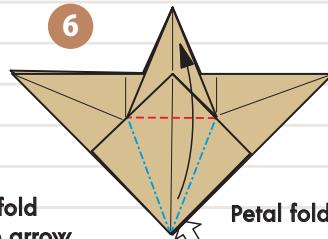
Wrap around and reform the layers (page 9).



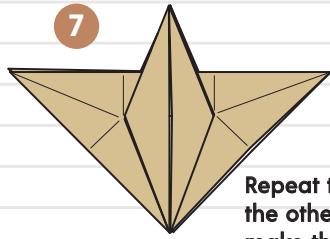
Repeat the fold in the other 3 locations.



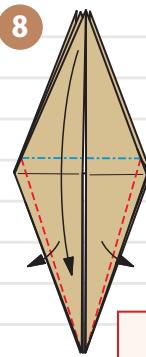
Squash fold from the arrow.



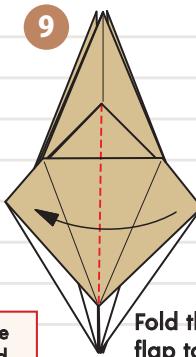
Petal fold.



Repeat the fold on the other 3 flaps to make the model symmetrical.



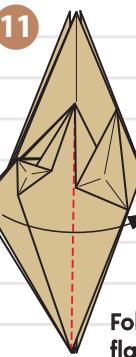
End of the basic fold



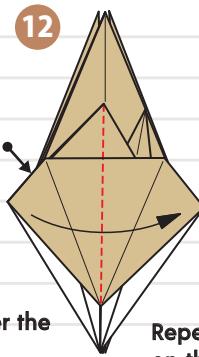
Fold the top flap to the left.



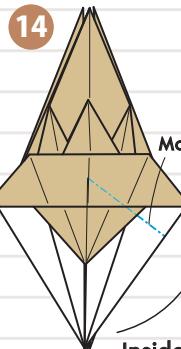
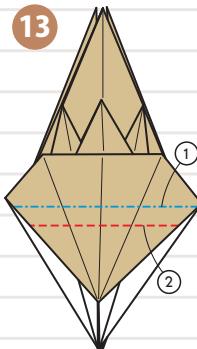
Squash where shown.



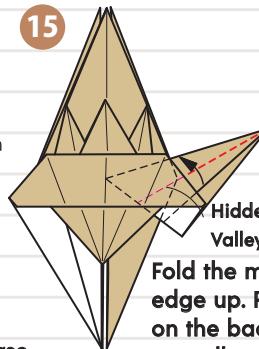
Fold over the flap.



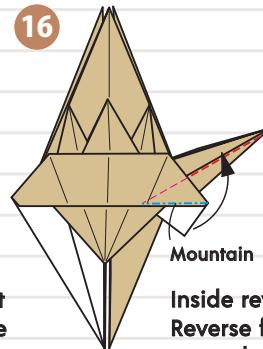
Repeat steps 9 to 11 on the other side.



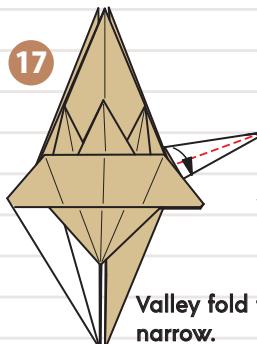
Mountain  
Inside reverse fold.



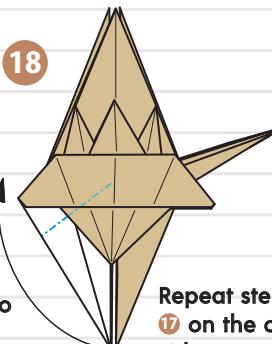
Hidden Valley  
Fold the middle edge up. Repeat on the back side as well.



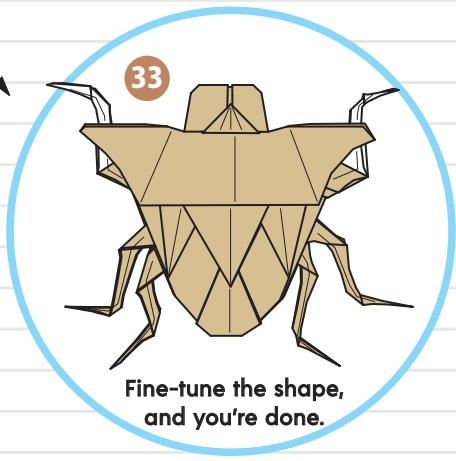
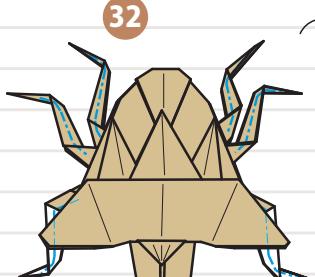
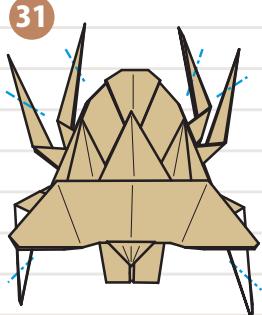
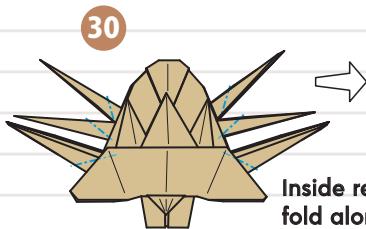
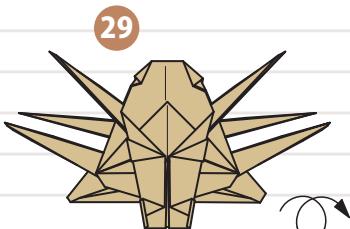
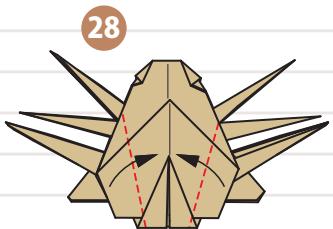
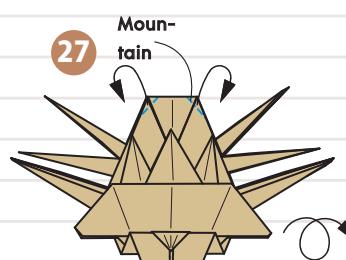
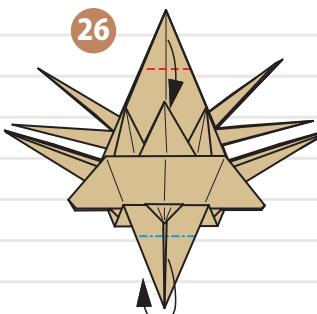
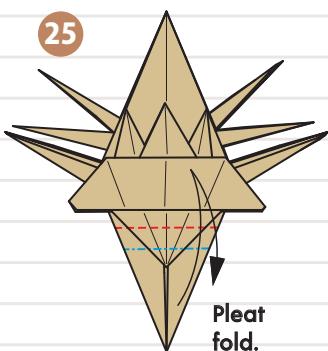
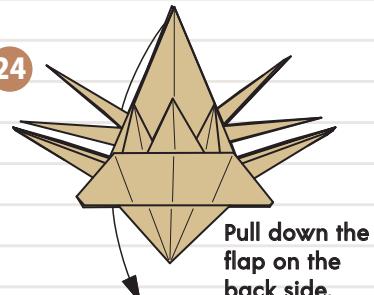
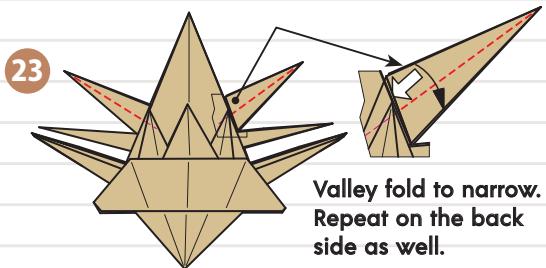
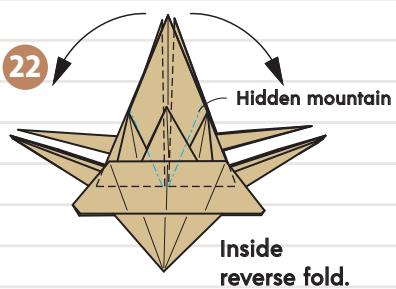
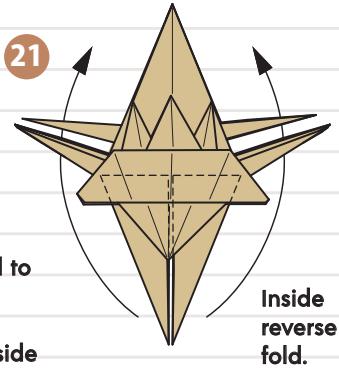
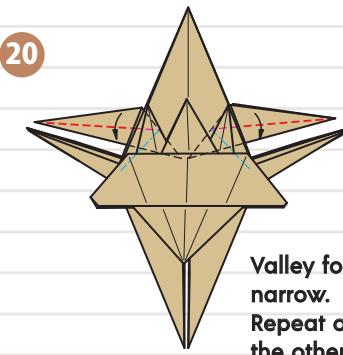
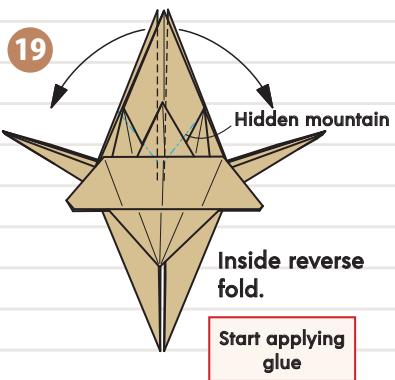
Mountain  
Inside reverse fold. Reverse fold the rear edge as well.



Valley fold to narrow.



Repeat steps 14 to 17 on the other side.





► Difficulty Rank: ★★★★☆

## CICADA

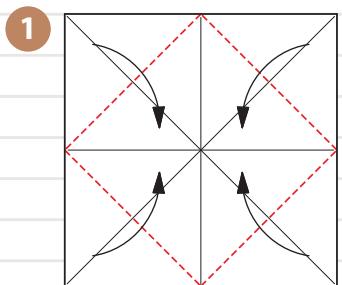
★ Type of paper:

Washi (stain dyed sheet)  
12½ x 12½ inch (32 x 32 cm)  
1 sheet

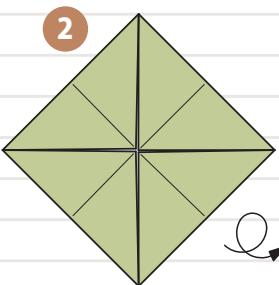


### Tips for folding

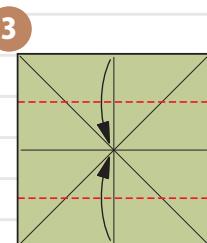
Both the Cicada and the Japanese Horned Beetle start from the same basic shape, which doesn't have a specific name. The folding process that creates the wings in step 25 is fairly difficult, so I recommend folding while visually comparing your origami to the illustrations. Only start applying glue after the process in step 45. Fold the antennae in such a way that their tips protrude slightly from the head. The corners you will fold in steps 30 to 38 become small yet thick folds, so I suggest using thin washi paper for this project. For a more realistic shape, fold the tips of the head into eye shapes. It's better to make the paper on either side of the central fold slightly concave.



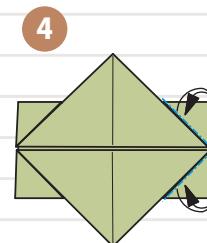
**1**  
Begin with a square creased along the diagonals and the sides. Valley fold 4 corners to the center.



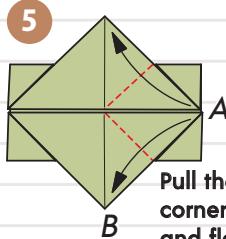
**2**  
Turn over and rotate the paper.



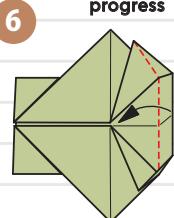
**3**  
Valley fold to the center, allowing the triangles to swing forward from behind.



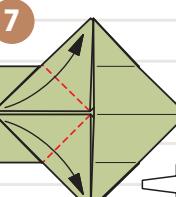
**4**  
Crease along the mountain line.



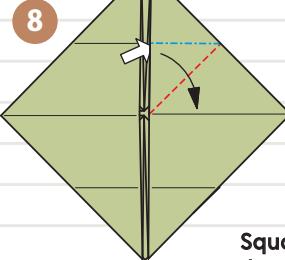
**5**  
Pull the side corners A outward and flatten. Allow the triangle to swing forward from behind.



**6**  
Step 5 in progress

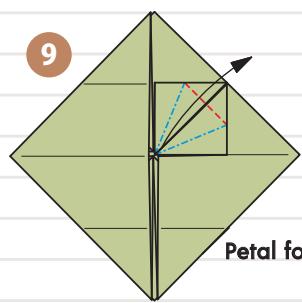


**7**  
Pull out the triangle on the back side.

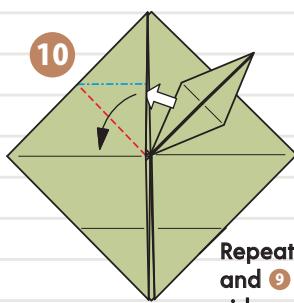


**8**

Squash from the open arrow.

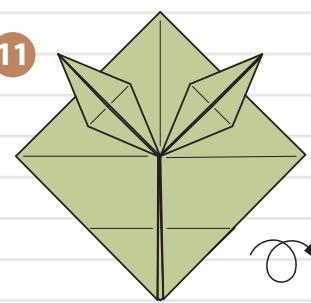


**9**  
Petal fold.



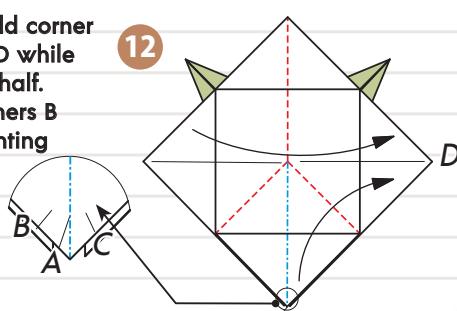
**10**

Repeat steps 8 and 9 on the other side.



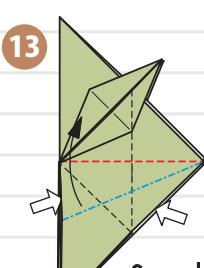
**11**

Reverse fold corner A toward D while folding in half. Leave corners B and C pointing down.



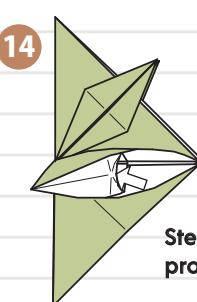
**12**

A  
B  
C  
D



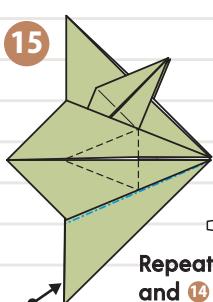
**13**

Squash fold where shown. The hidden layers will squash as well.

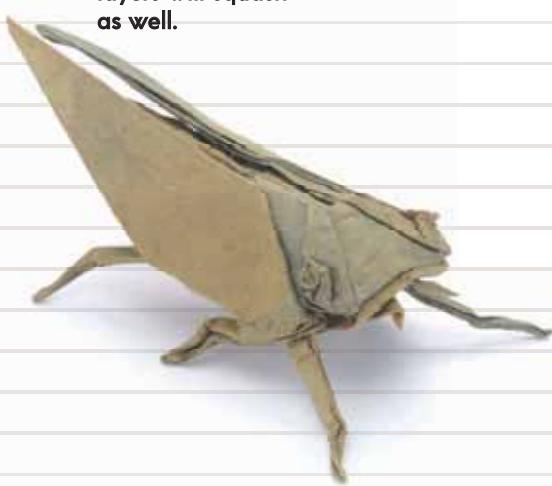


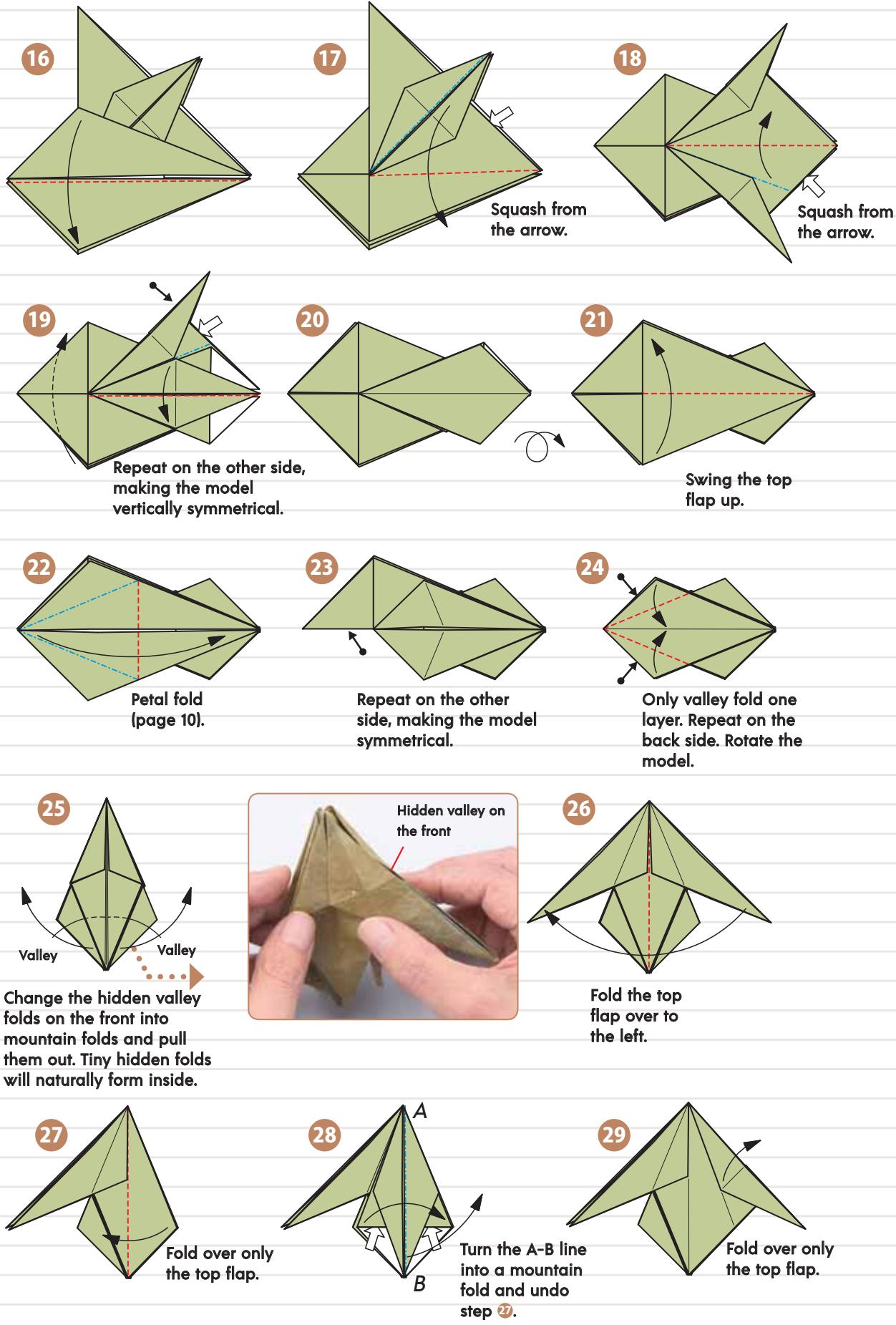
**14**

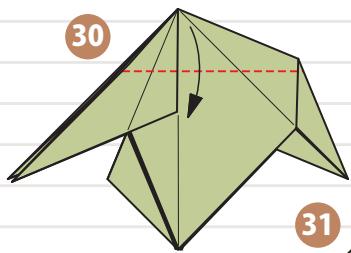
Step 13 in progress.



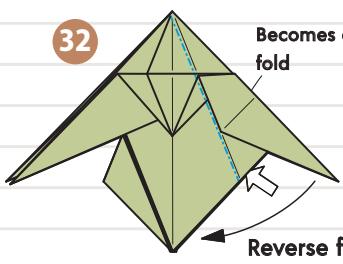
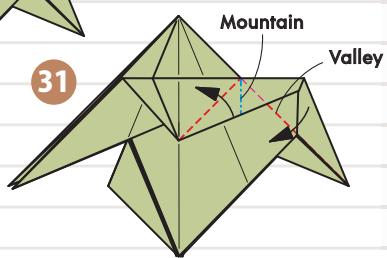
**15**  
Repeat steps 13 and 14 on the other side.



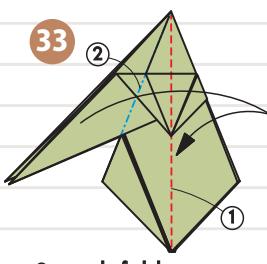




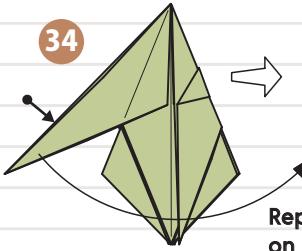
Valley fold as far down as possible.



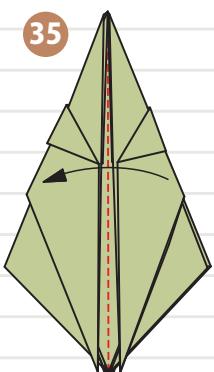
Reverse fold inside.



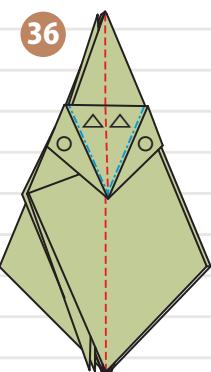
Squash fold.



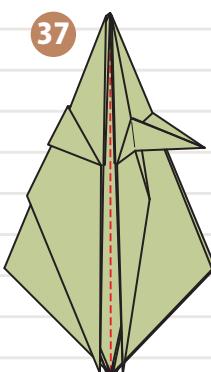
Repeat steps 30 to 33 on the other side.



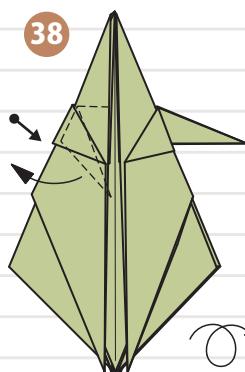
Fold over only the top flap.



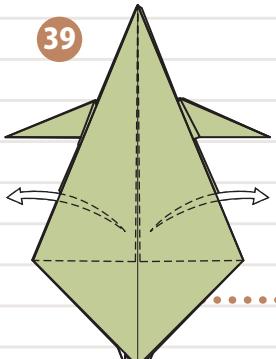
Match the triangles. Grasp and pull the circles to the front.



Step 36 in progress.



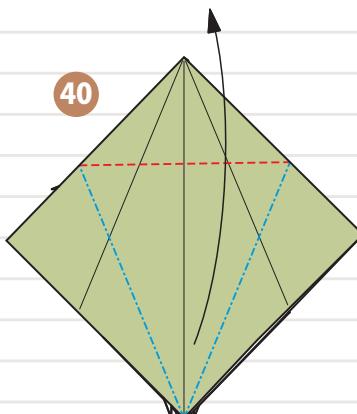
Repeat steps 35 to 37 on the other side, making the model horizontally symmetrical.



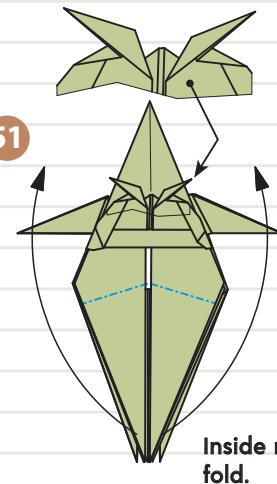
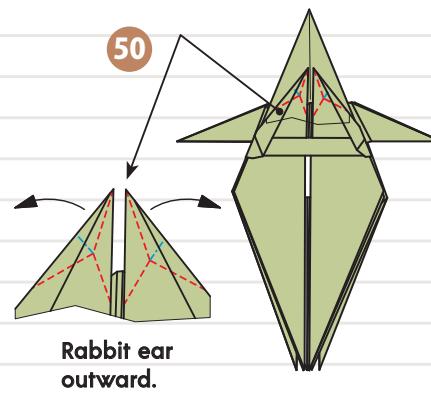
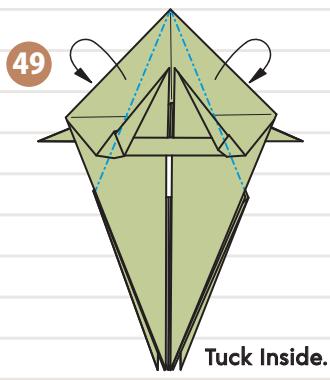
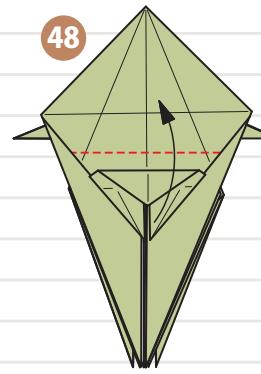
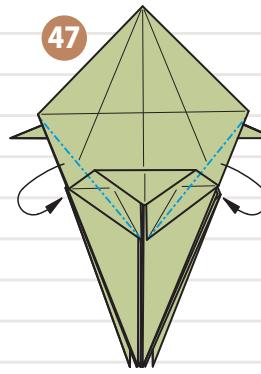
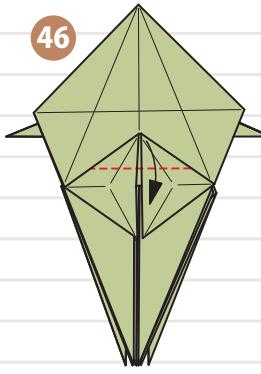
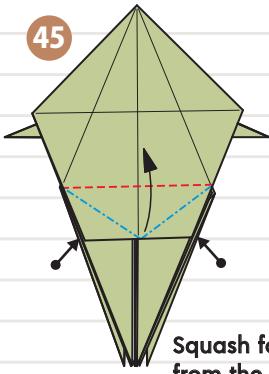
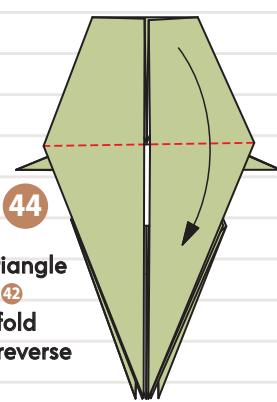
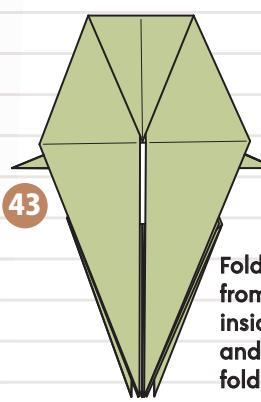
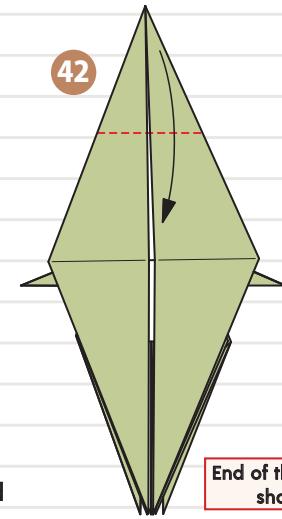
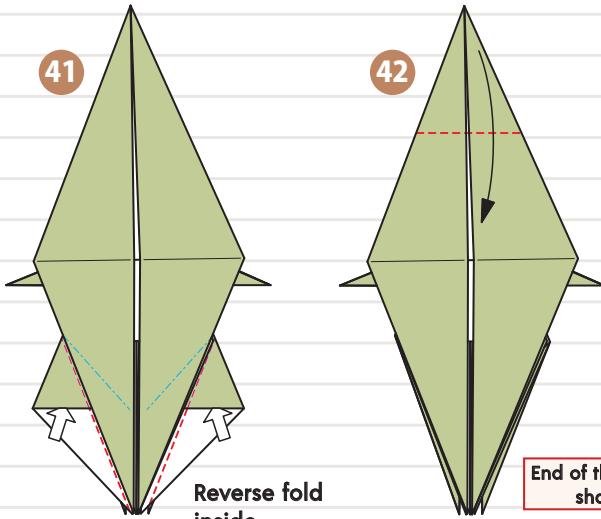
Release the trapped layers.



What it looks like when opened.

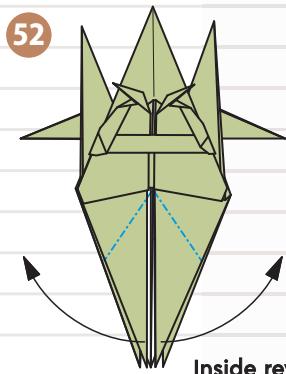


Petal fold.

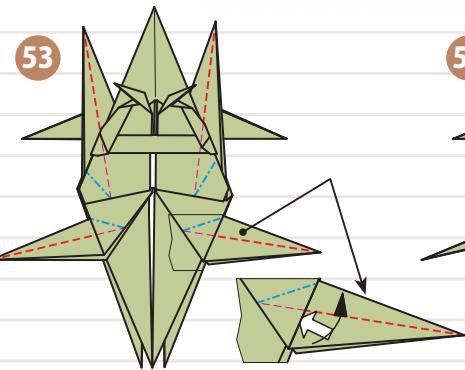




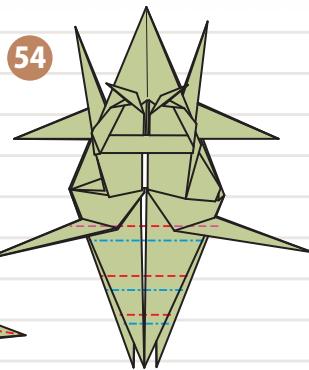
CICADA



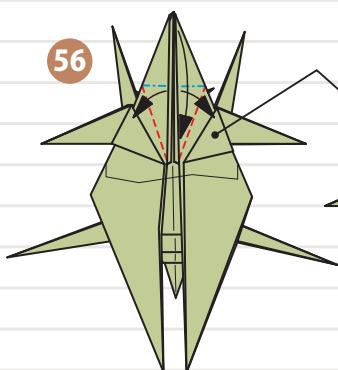
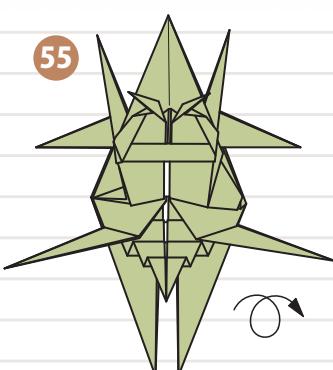
Inside reverse fold.



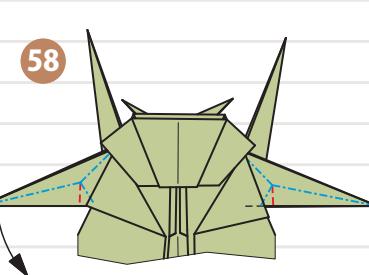
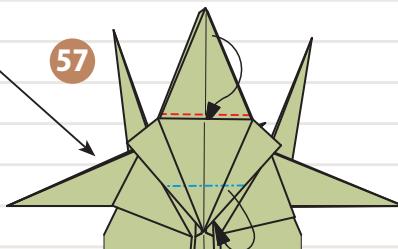
Valley fold and swivel.  
Repeat on the back side.  
Repeat on the other 3  
locations as well.



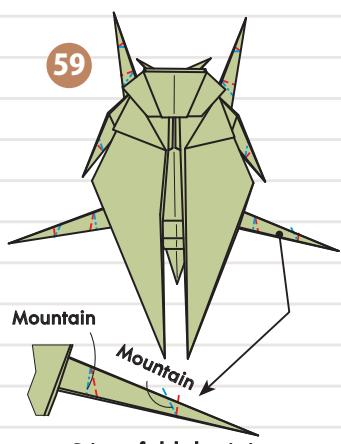
Pleat fold 3 times.



Tuck inside.

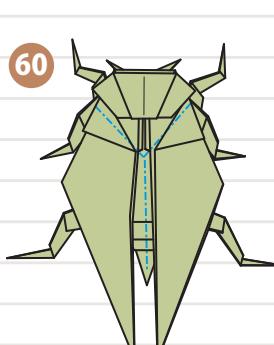


Thin fold (page  
8) to narrow.  
Repeat on the  
other side.

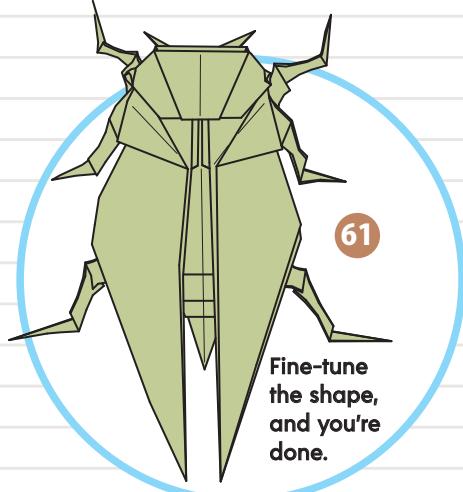


Mountain  
Mountain

Crimp fold the joints  
on the 6 legs.



Make the legs thinner  
using mountain folds and  
bend the body slightly.



Fine-tune  
the shape,  
and you're  
done.



► Difficulty Rank: ★★★★☆

## JAPANESE HORNED BEETLE

★ Type of paper:

Washi (thin mulberry bark fiber sheet)  
12½ x 12½ inch (32 x 32 cm)  
1 sheet

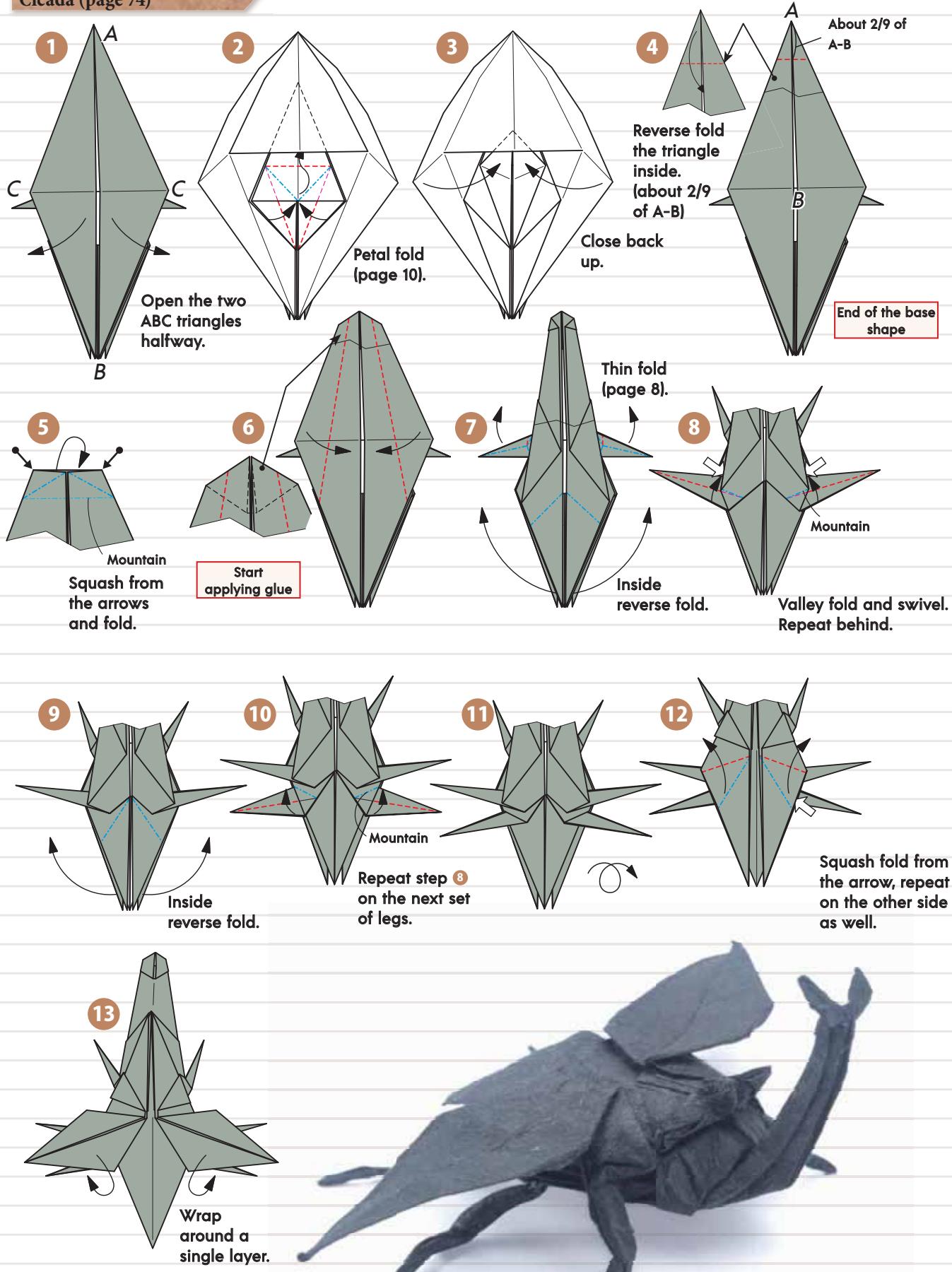


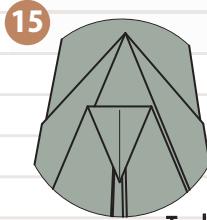
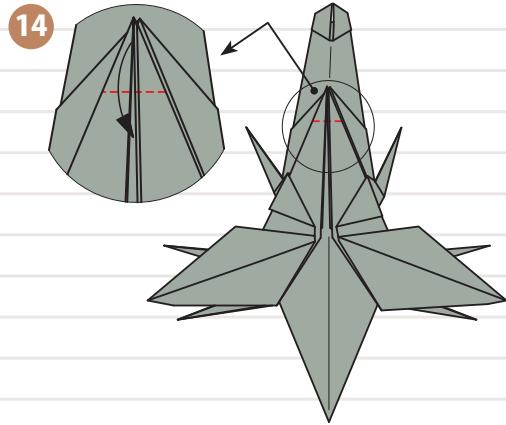
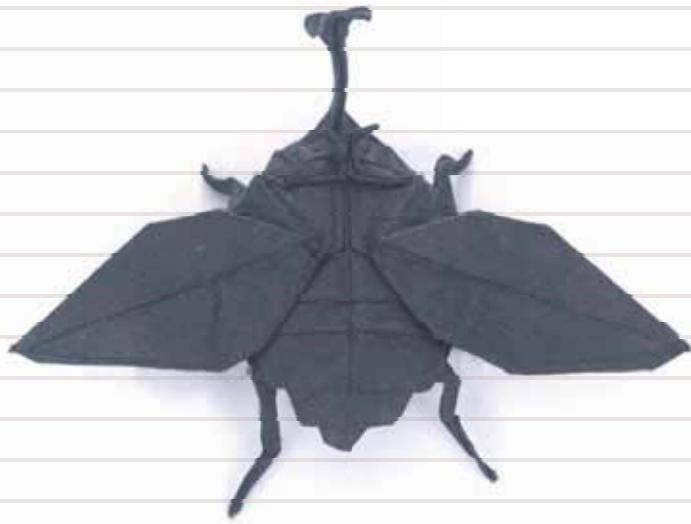
### Tips for folding

Don't apply glue until after step 5. The process from step 30 to 38 of the Cicada (page 70) is used to fold the front legs in this case. Make sure that the front legs are visible from a top view of the finished origami, and not hidden by wings. Because you are going to squash a rather thick part in step 16, make sure you're using thin paper. The sides of the head should slope gently away from the center for a more realistic look. When looking at the finished origami from above, the long horn looks odd if it's too thin, so it's better to gradually adjust the shape starting from the base of the horn.

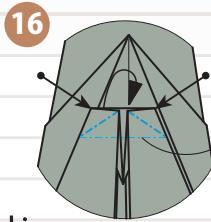


Start from Step 42 of the Cicada (page 74)

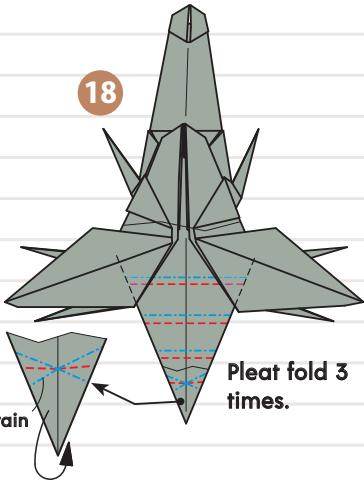
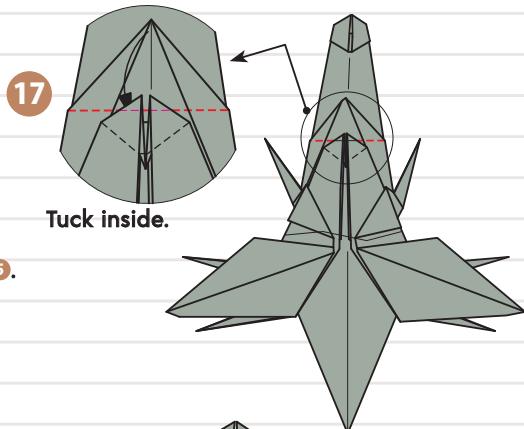




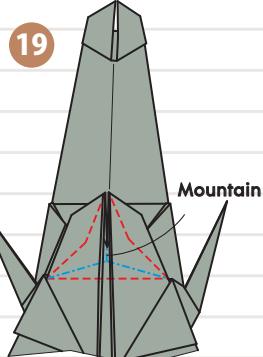
Tuck the triangle folded in step 14 inside (open up and reverse fold).



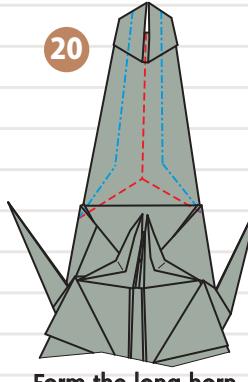
Mountain  
Squash fold like in step 5.



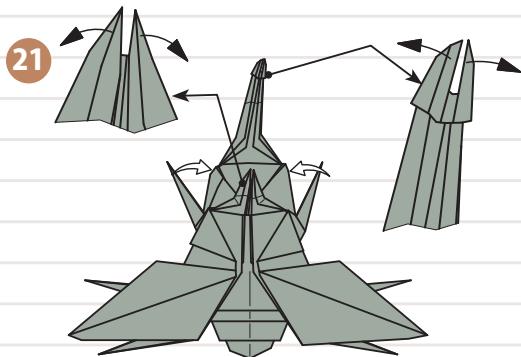
Mountain  
Pleat fold 3 times.



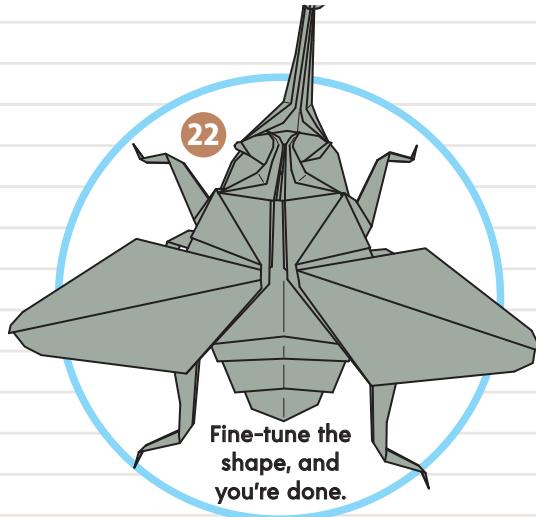
Form the short horn.



Form the long horn.



Open the end of the two horns. Make the head thinner. Fold the joints in the legs.



Fine-tune the shape, and you're done.



► Difficulty Rank: ★★★★☆

## FIVE-HORNED RHINOCEROS BEETLE

★ Type of paper:

Washi (suzaki paper—black)  
12 x 12 inch (30 x 30 cm)  
1 sheet

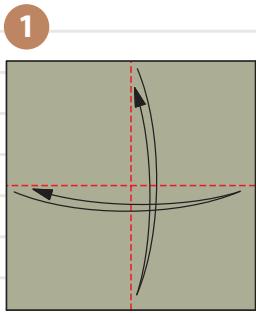


### Tips for folding

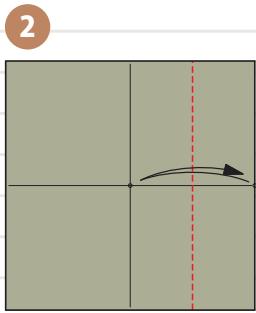
Start by folding one side at 1/3 the width of the square. Then, fold the Four Cranes Base (page 67). From the base, proceed to fold the five horns of the model. Instead of following steps 1 to 3, you could use a simpler method (see the bottom right illustration). I recommend using thin paper, because the four shorter horns will become quite thick otherwise. Steps 7 to 19 follow the same folding pattern as in the Chinese Phoenix (page 106). Closely follow the instructions for the "fold back" process in step 18. Apply glue on the inner side of the horns after you finish folding the two horns in step 25. Be careful not to make the head too large in step 16. I recommend applying glue at the base of the four shorter horns, inside the head.

✖ **Folding a side into three equal parts:**  
You can either follow steps 1 to 3, or follow this simpler folding method. As shown in the illustration below, you can loosely fold the paper into three parts and then fine-tune the sections until the three parts become equal.

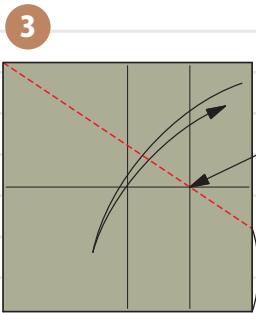




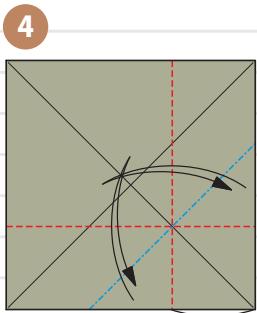
Crease along the valley fold lines.



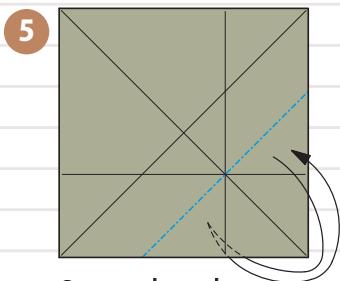
Crease along the valley fold line.



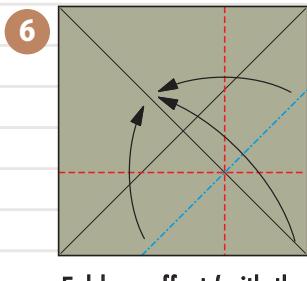
Crease from the corner along the valley fold that goes through the intersection point A, thus exactly separating  $1/3$  of the side.



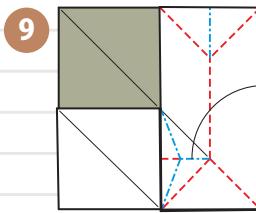
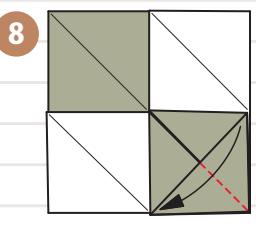
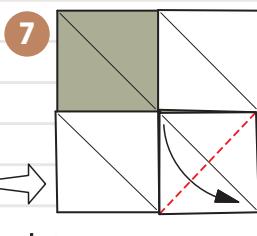
Crease along the valley fold lines.  $1/3$  of the side



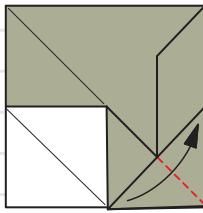
Crease along the mountain fold.



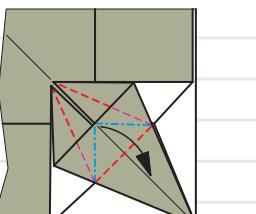
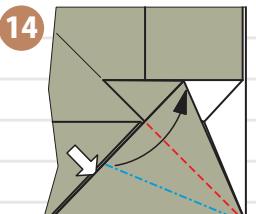
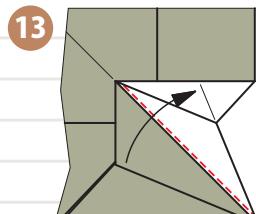
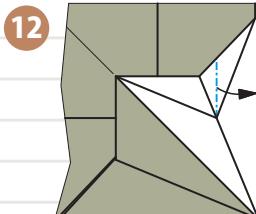
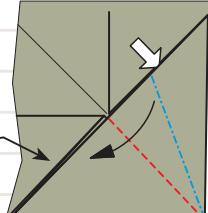
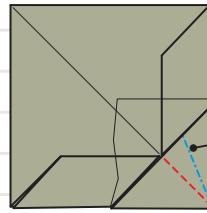
Fold an offset (with the center shifted) Preliminary Base (page 10).



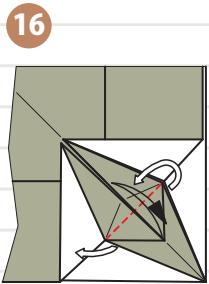
Mountain



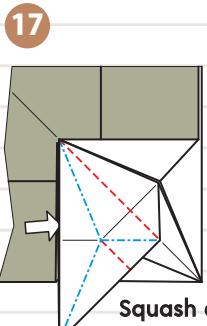
Repeat steps 8 and 9 on the other side.



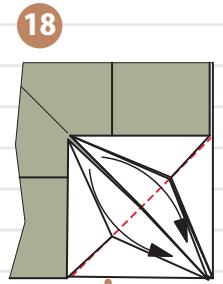
Repeat steps 11 to 13 on the next flap. Petal fold (page 10).



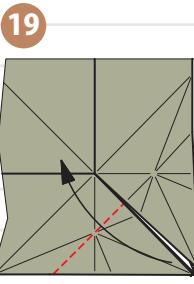
Wrap around and reform the layers (page 9).

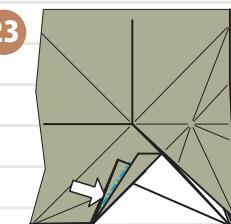
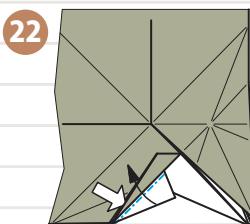
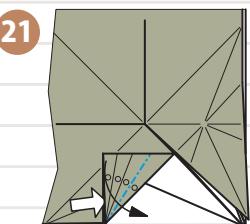
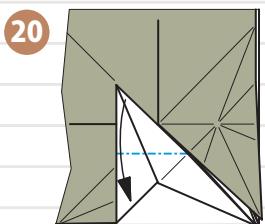


Squash and then petal fold.



Valley fold down, allowing the hidden reverse folds to open out and flatten.

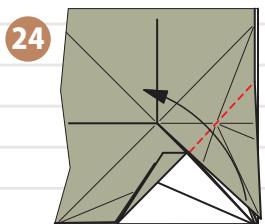
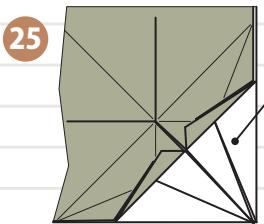
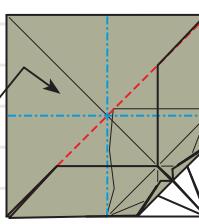
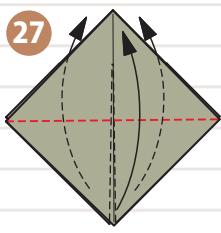
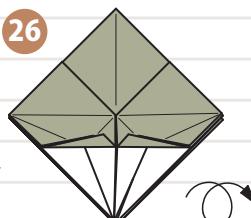
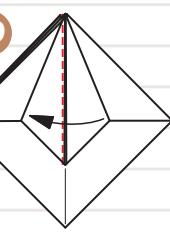
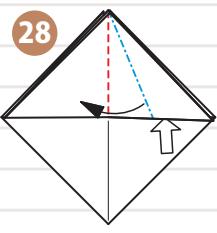




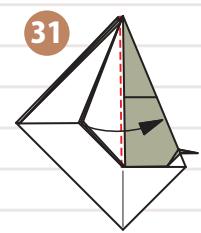
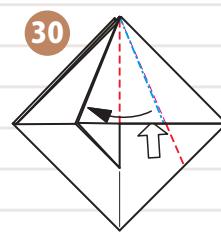
Inside reverse fold.

Inside reverse fold.

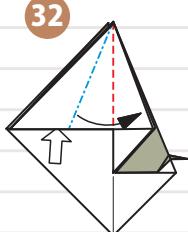
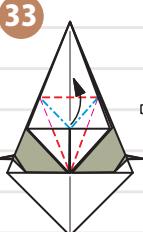
Inside reverse fold.

Repeat steps 19 to 23  
on the other side.Only apply glue on the  
part that is zoomed inFold a Preliminary Base.  
Rotate the paper.Valley fold up.  
Repeat on the other  
two hidden flaps.

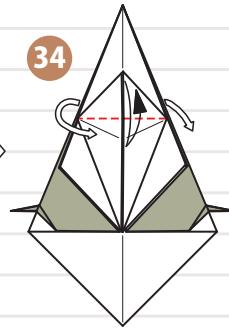
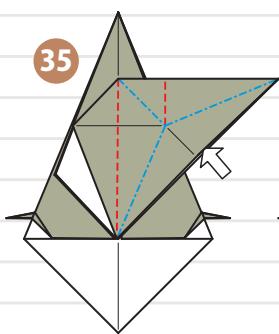
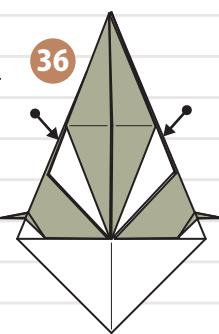
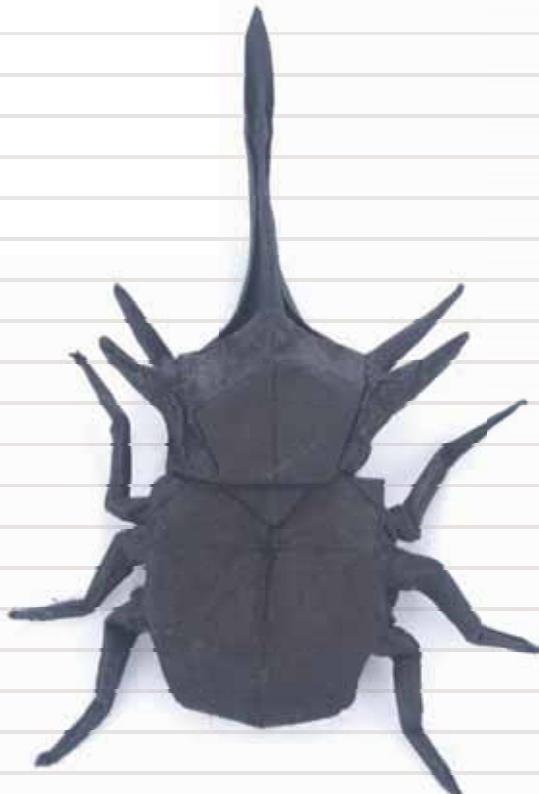
Swing over one flap.

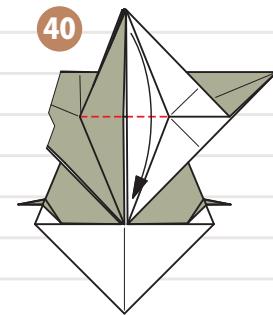
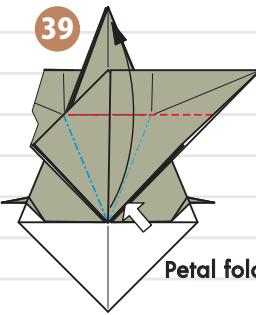
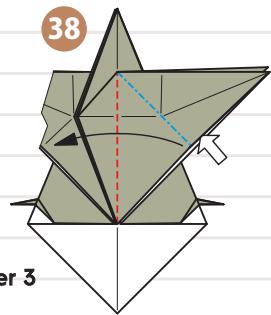
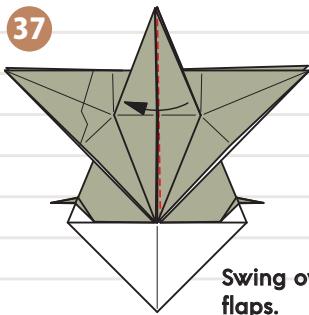


Swing over 3 flaps.

Repeat steps 28 to 31 on  
the other side.

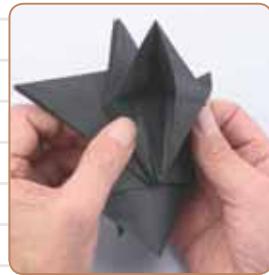
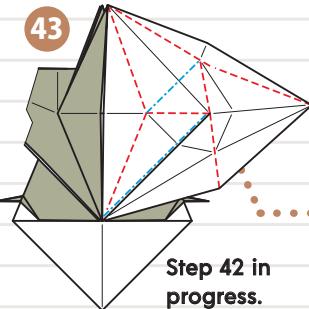
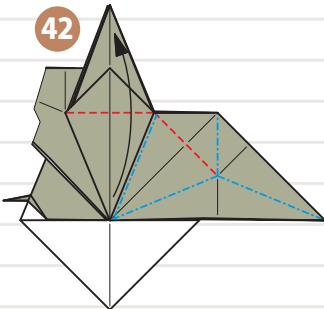
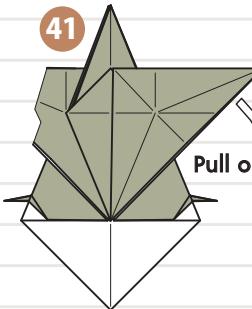
Petal fold.

Wrap around  
and reform  
layers.Squash and then  
petal fold.Repeat steps 33 to 34 on  
the other two adjacent  
flaps.



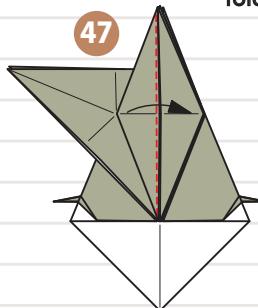
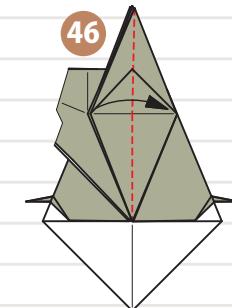
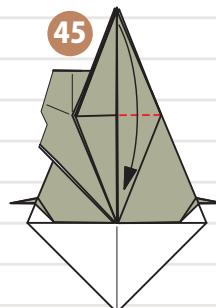
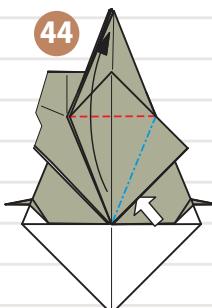
Swing over 3 flaps.

Petal fold.



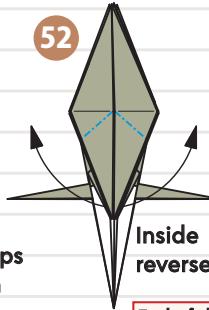
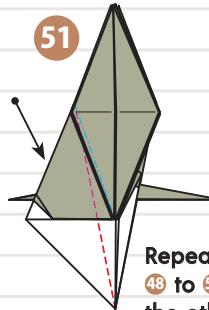
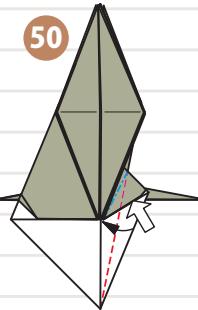
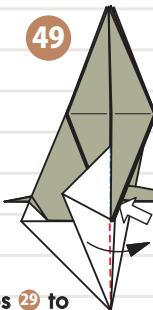
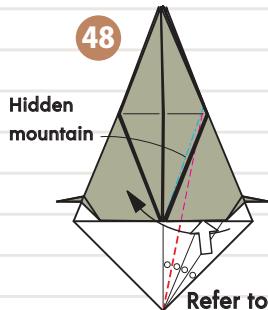
Pull out.

Step 42 in progress.



Swing over five flaps.

Repeat steps 37 to 46 on the other side, making both sides even.

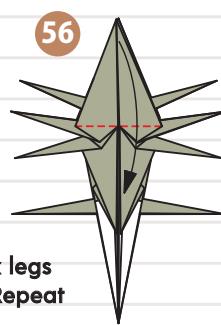
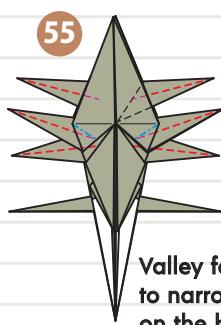
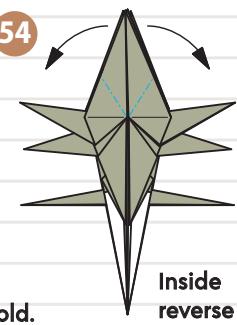
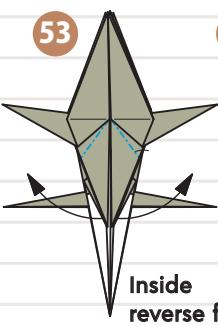


Hidden mountain

Refer to steps 29 to 39 of the Archaeopteryx (page 94).

Repeat steps 48 to 50 on the other side.

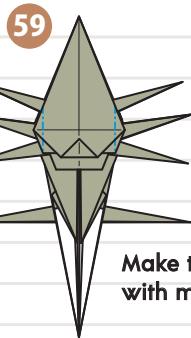
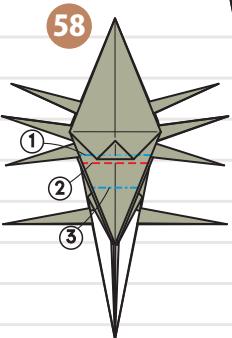
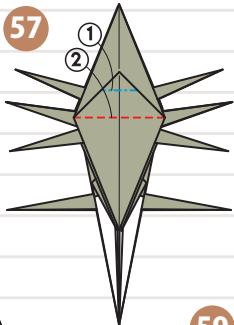
Inside reverse fold.  
End of the basic shape



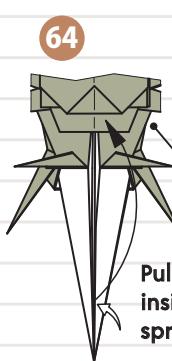
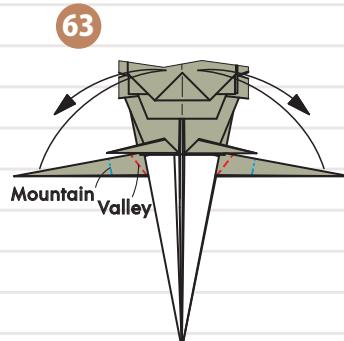
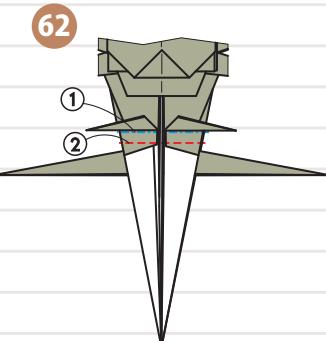
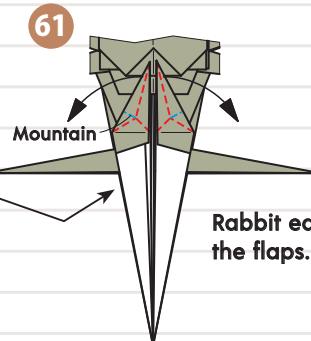
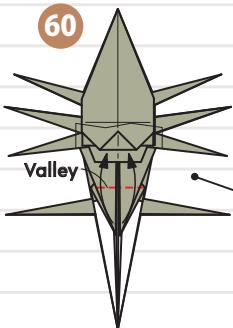
Inside reverse fold.

Inside reverse fold.

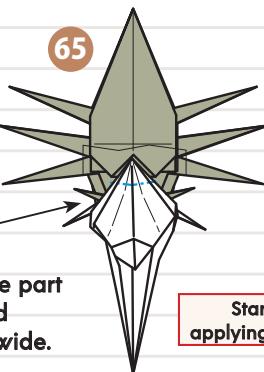
Valley fold the six legs to narrow them. Repeat on the back side.



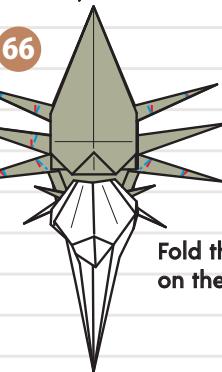
Make the body thinner  
with mountain folds.



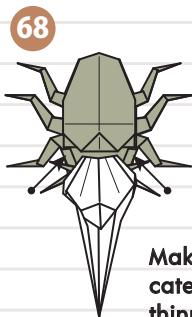
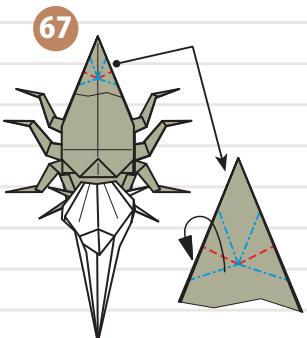
Pull out the part  
inside, and  
spread it wide.



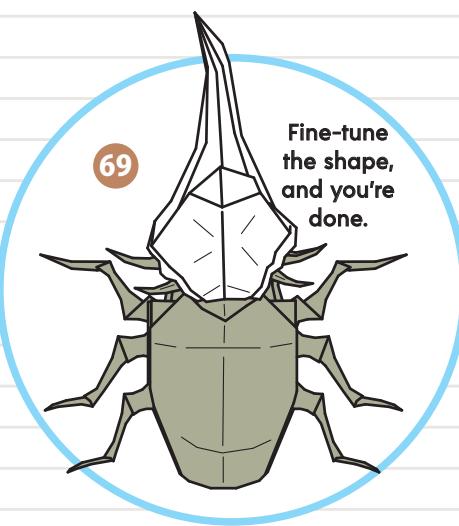
Start  
applying glue



Fold the joints  
on the six legs.



Make the parts indi-  
cated by the arrows  
thinner. Make the six  
legs thinner. Lift the  
horn into an arch. Turn  
the model 180 degrees.





► Difficulty Rank: ★★★★☆

## DRAGONFLY

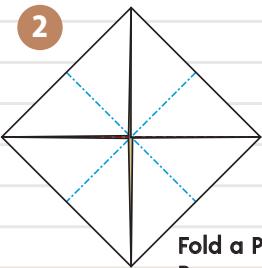
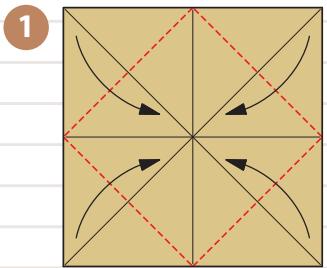
★ Type of paper:

Washi (Awayuki—light snow)  
12½ x 12½ inch (32 x 32 cm)  
1 sheet

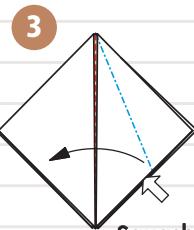


### Tips for folding

This model has the longest procedure in the book, but it is mostly made of basic folds and shapes, so you should be able to get it done by following the instructions and illustrations. There's an evolution of the Four Crane Base (seen in the Stink Bug, page 67), which can also be called an "Eight Crane Base." There are also layer rearrangements and "fold around" procedures aplenty. You are going to change the valley folds you make up to step 22 into mountain folds, being careful not to add unintentional extra creases until you reach the "end of the basic shape" indicator. The four wings are folded over in a similar style to the "color change" process (page 20), but in this case it's done to remove any creases on the wings. Glue applied only to the back side of the wings might be insufficient to hold the shape, so I recommend applying additional glue on the gap in the fronts. The process in step 108 where you thin the body is tricky unless you apply enough glue.

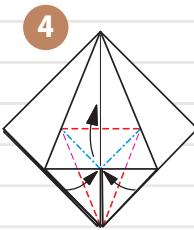


Fold a Preliminary Base.



3

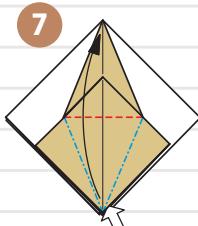
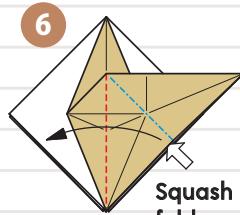
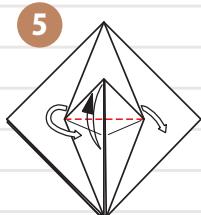
4



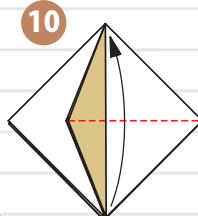
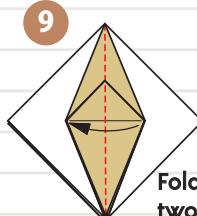
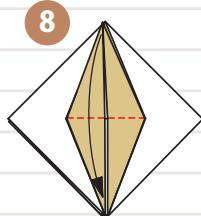
4

Petal fold (page 10).

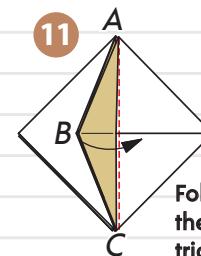
Begin with a square creased along the diagonals and the sides. Fold 4 corners to the center.



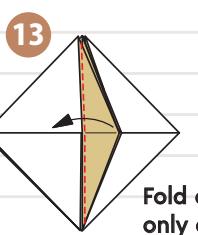
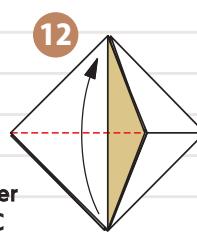
Wrap around and reform layers (page 9).



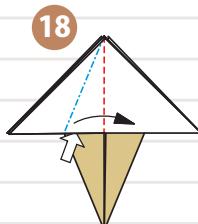
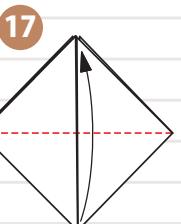
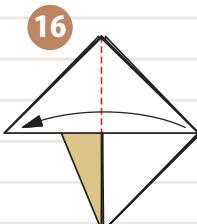
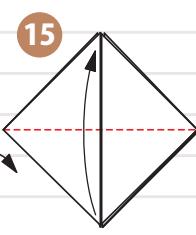
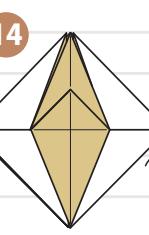
Fold over two flaps.



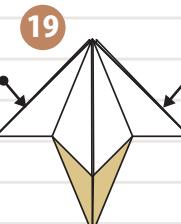
Fold over the ABC triangle.



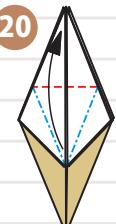
Fold over only one flap.



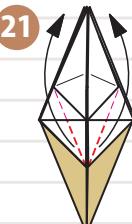
Squash fold.



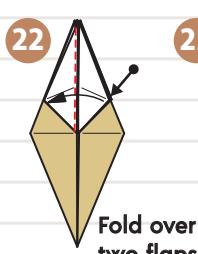
Reverse fold the side flaps.



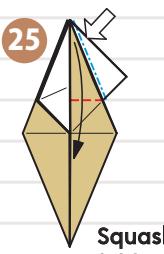
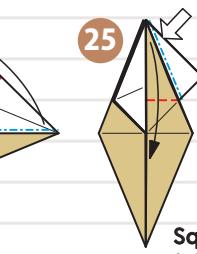
Petal fold (page 10).



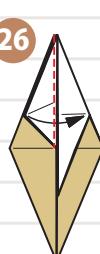
Petal fold the side flaps.



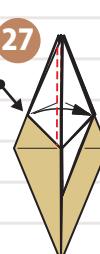
Release the trapped flap.



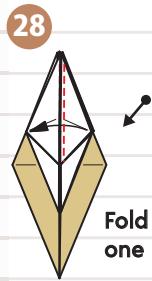
Squash fold.



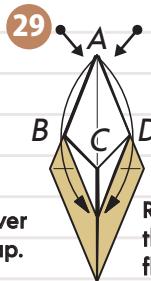
Return the two flaps from step 22.



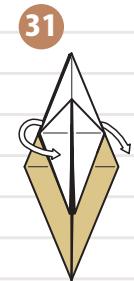
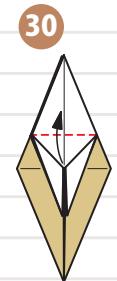
Repeat steps 22 to 26 on the other side, making the model symmetrical.



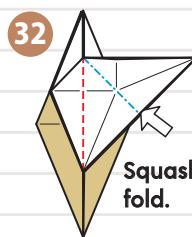
Fold over one flap.



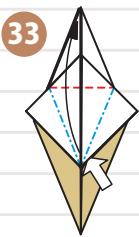
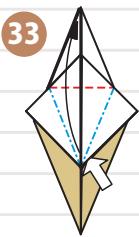
Reverse fold the side flaps down.



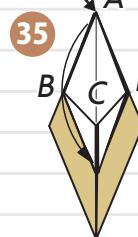
Wrap around and reform layers.



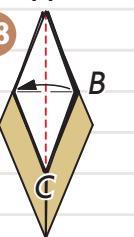
Squash fold.



Fold over the 3 ABC triangles on top.



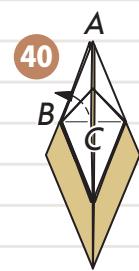
Reverse fold the side flap down.



Fold two ABC triangles over.



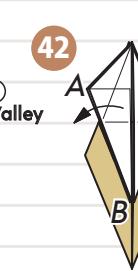
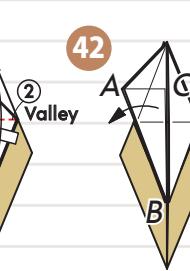
Fold over two folds.



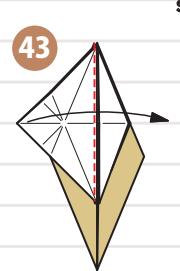
Spread the ABC triangle on top.



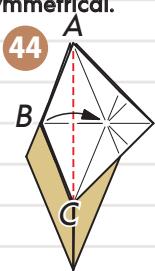
Mountain



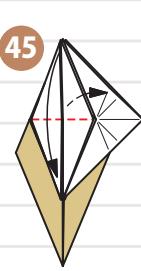
Spread the hidden ABC triangle.



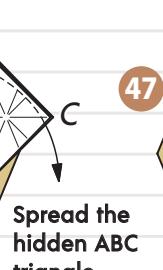
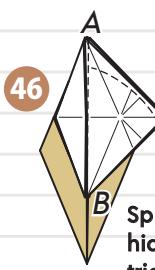
Fold over only one flap.



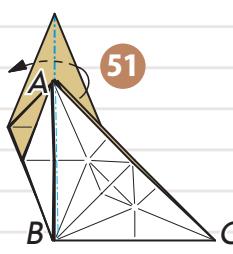
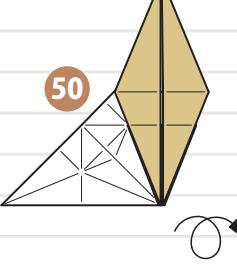
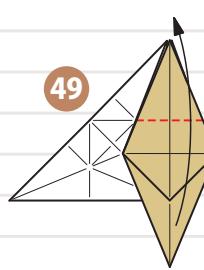
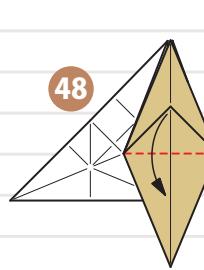
Fold over the two ABC triangles on top.



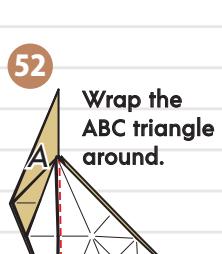
Repeat steps 39 to 45 on the other side.



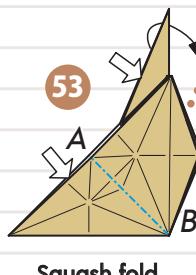
Spread the hidden ABC triangle.



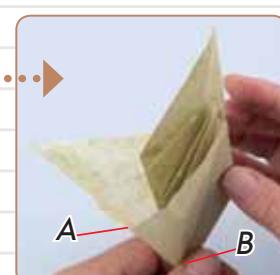
Leaving out the two ABC triangles, mountain fold over the part shown.



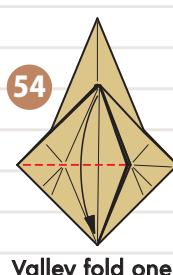
Wrap the ABC triangle around.



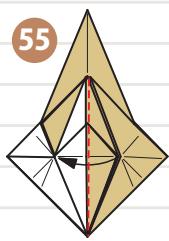
Squash fold where shown. A-B becomes a mountain fold.



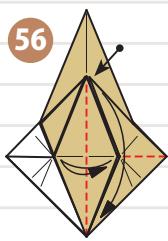
What it looks like while folding.



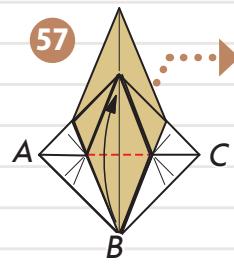
Valley fold one flap.



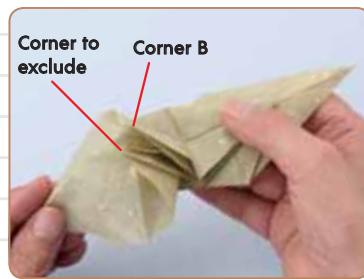
Fold over  
two flaps.



Repeat steps  
54 and 55.



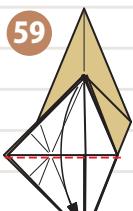
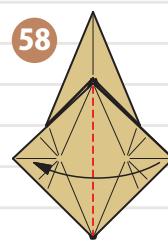
Valley fold up,  
pulling out the  
ABC triangle  
from behind.



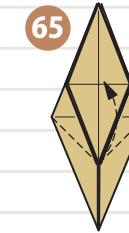
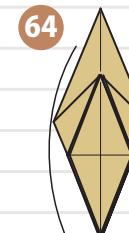
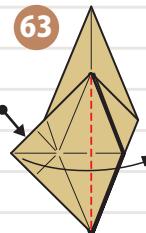
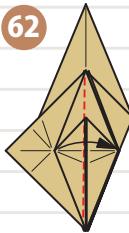
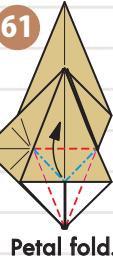
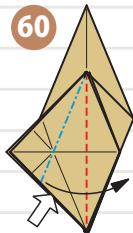
Corner to  
exclude

Corner B

Don't fold the corner inside.



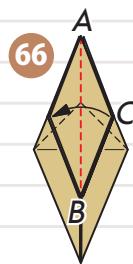
Fold over  
one flap.



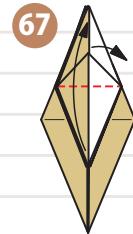
Repeat steps 58  
to 62 on the other  
side, making the  
model symmetri-  
cal.

Lower the part  
you raised in  
step 49.

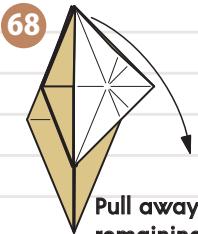
Raise the triangle  
(on the back side)  
that you lowered  
in step 48.



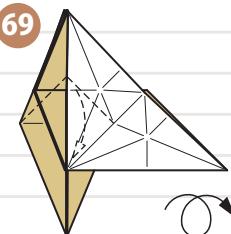
Swing over 3 of  
the ABC trian-  
gles.



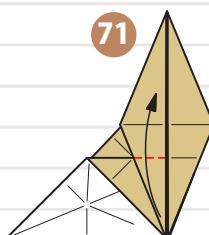
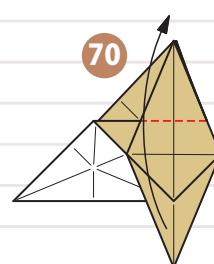
Repeat steps  
40 to 43.



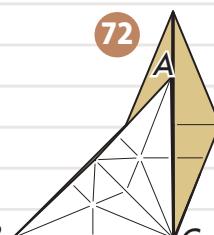
Pull away the  
remaining  
part on top.



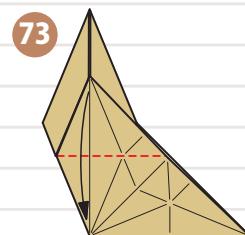
Lower the  
triangle on  
the back.



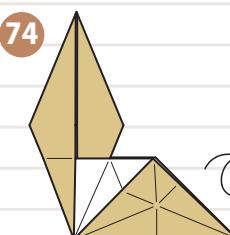
Fold over  
only one  
flap.



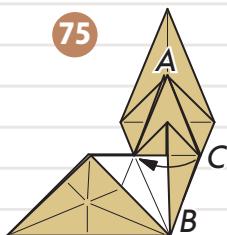
Wrap around the  
ABC triangle.



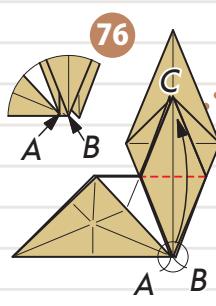
Valley fold. Repeat  
on the back side  
as well.



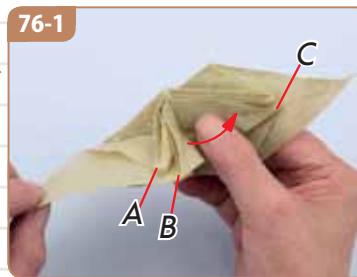
Flip the model  
horizontally.



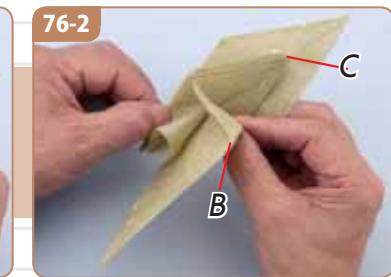
Fold over 3 of the  
ABC triangles.



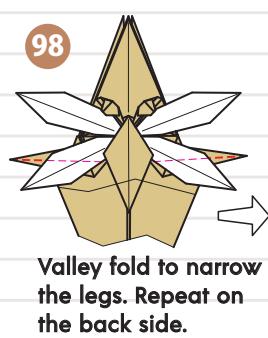
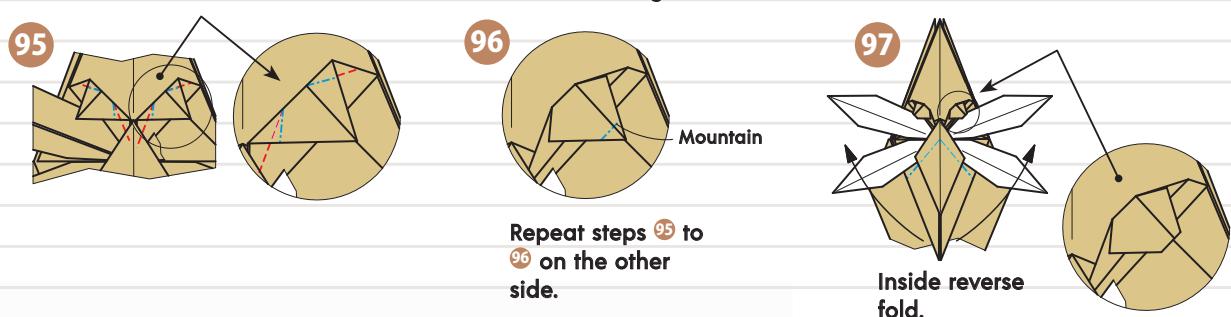
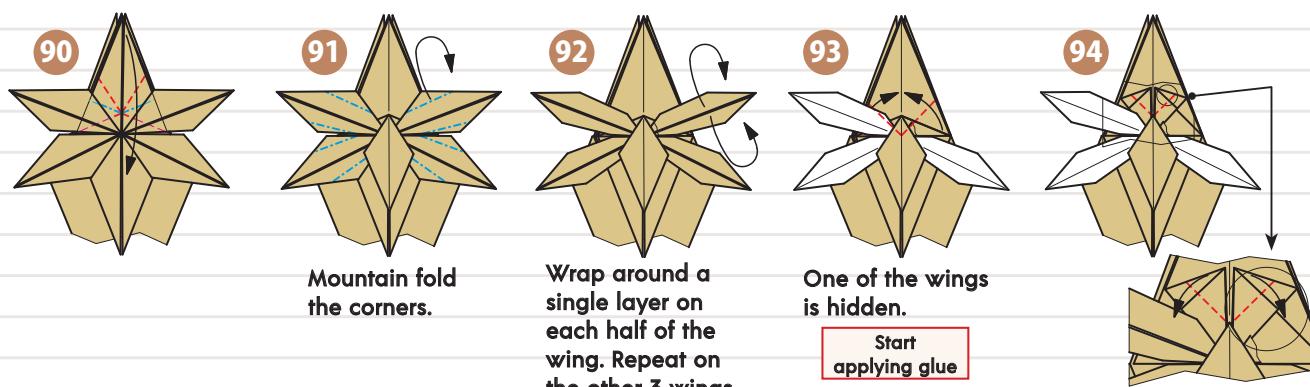
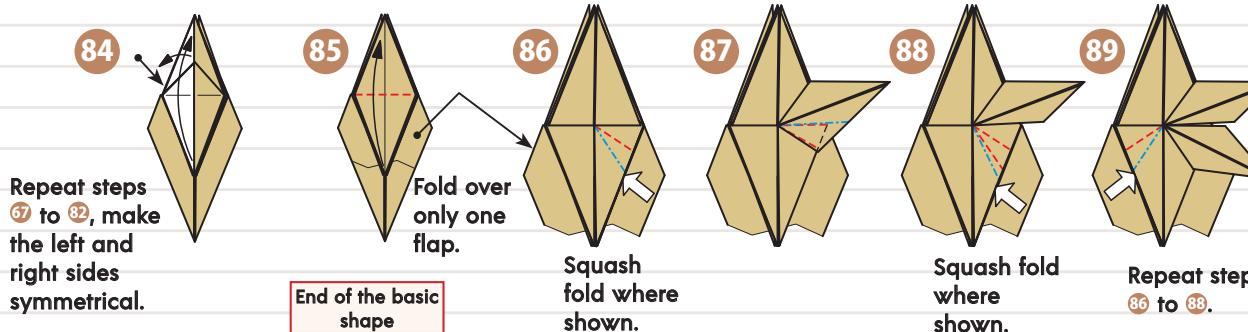
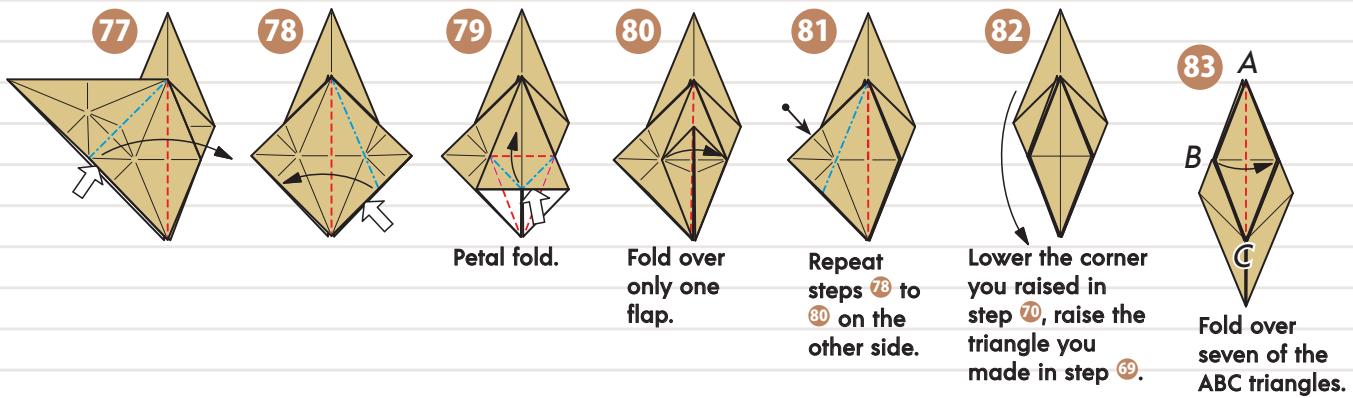
Exclude  
corner A and  
match corner  
B to C.

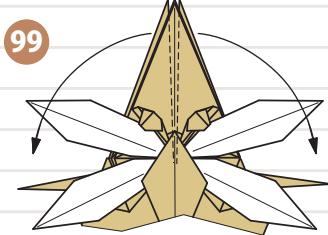


Fold B all the way to C.

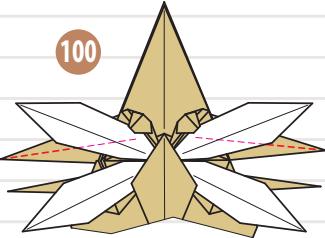
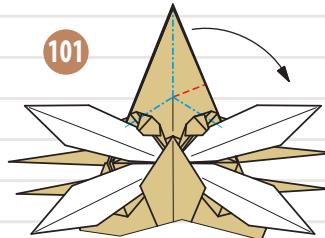
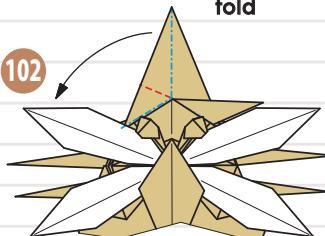
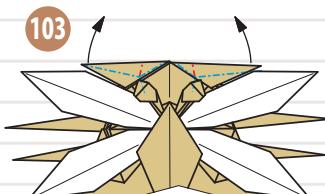
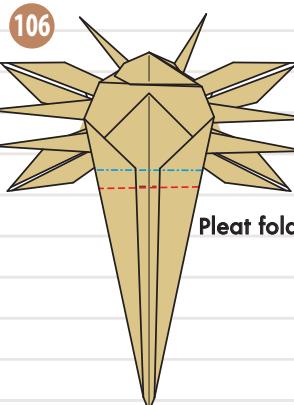
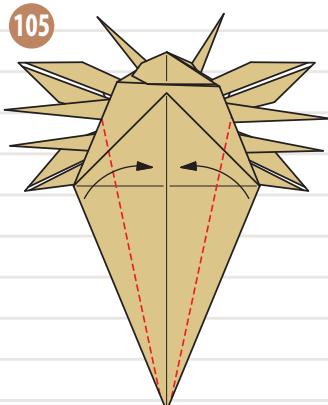
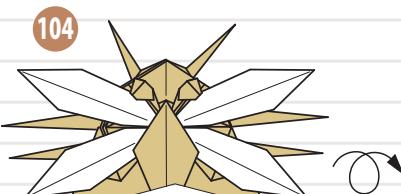


To keep A from moving, hold it  
firmly during the process.

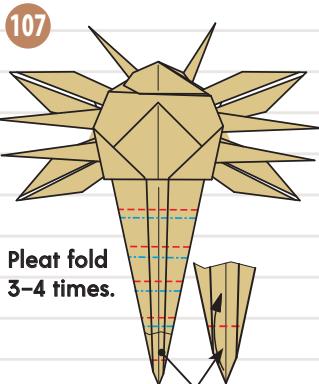
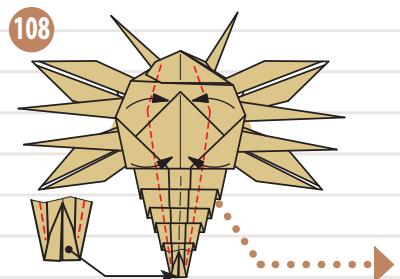
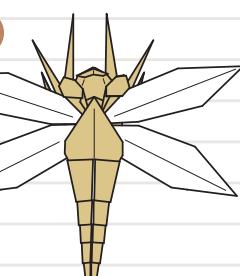
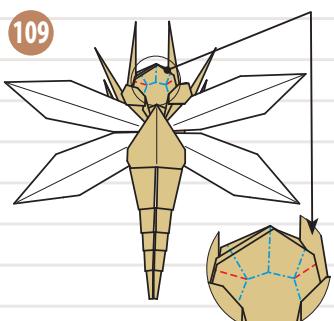
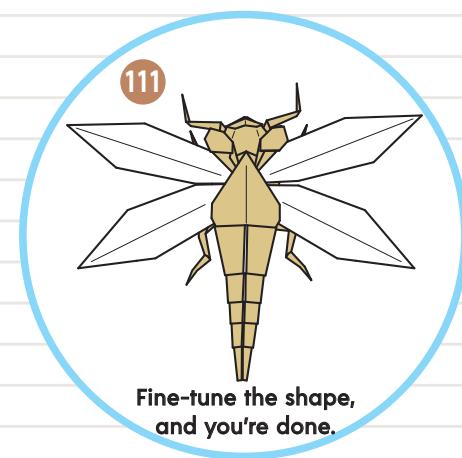




Inside reverse fold

Valley fold to narrow  
the legs. Repeat on the  
back side.Rabbit ear the  
upper flap.Rabbit ear the  
next flap.Thin fold (page  
8) to narrow.

Pleat fold.

Pleat fold  
3-4 times.Valley fold  
perpendicularly.Including part of the body,  
raise the legs perpendicularly.Study the shape and compres  
the wings so they aren't too  
thick.Adjust the shape of  
the legs.Fine-tune the shape,  
and you're done.



► Difficulty: ★★★★☆

## PTERANODON

★ Type of paper:

Washi (dyed pattern)

9 x 9 inch (23 x 23 cm)

1 sheet



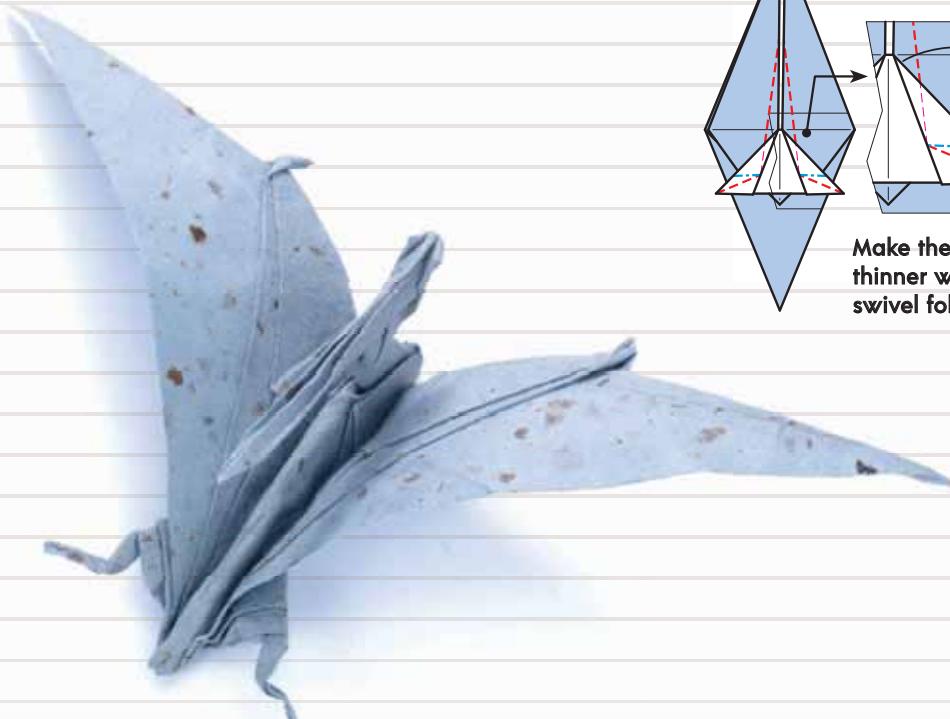
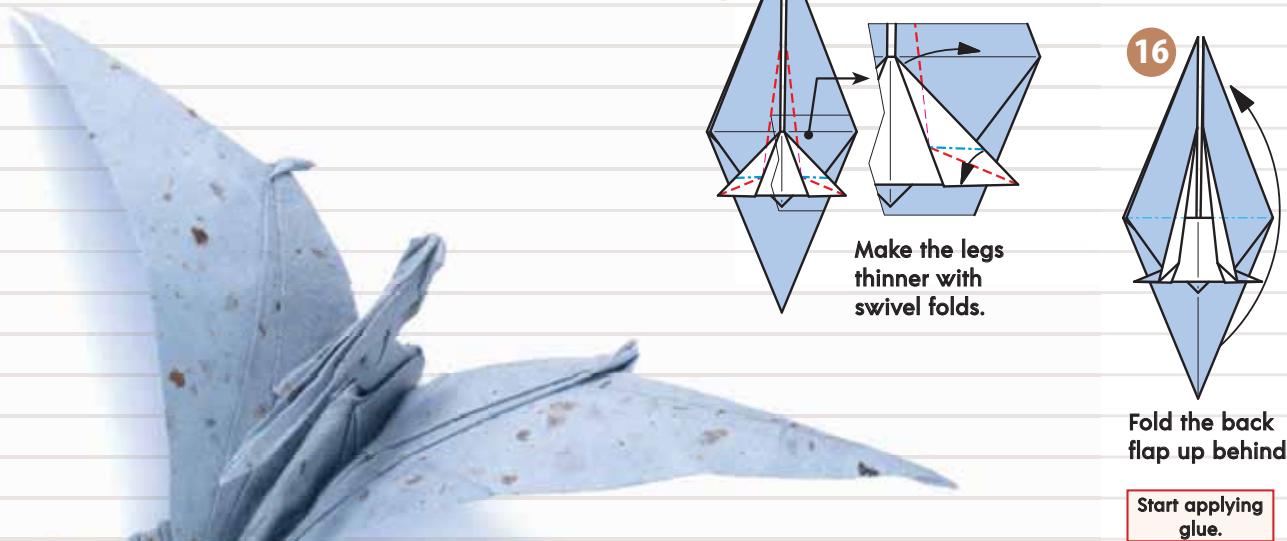
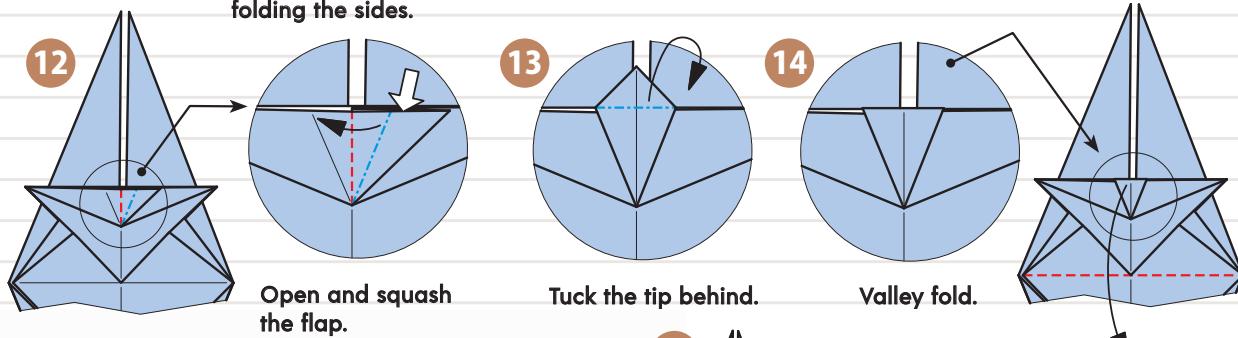
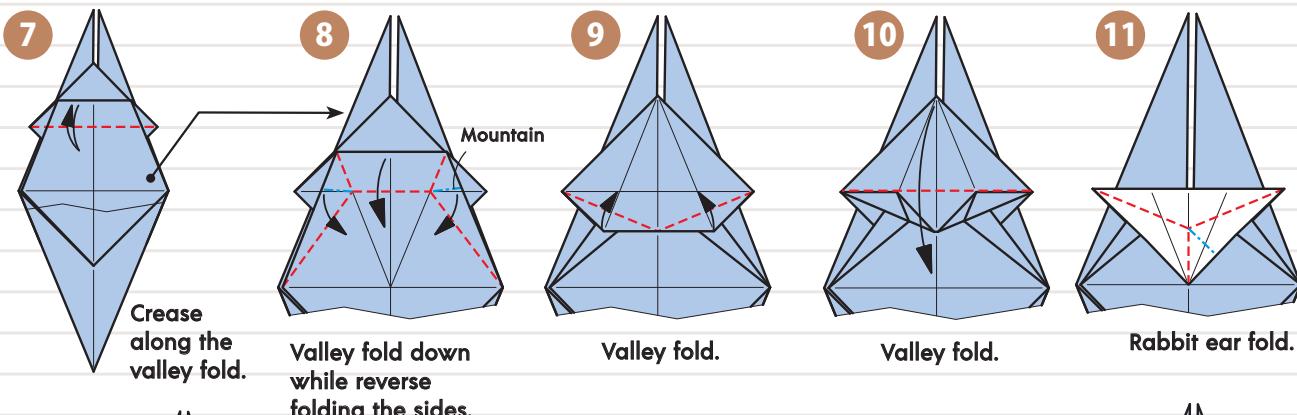
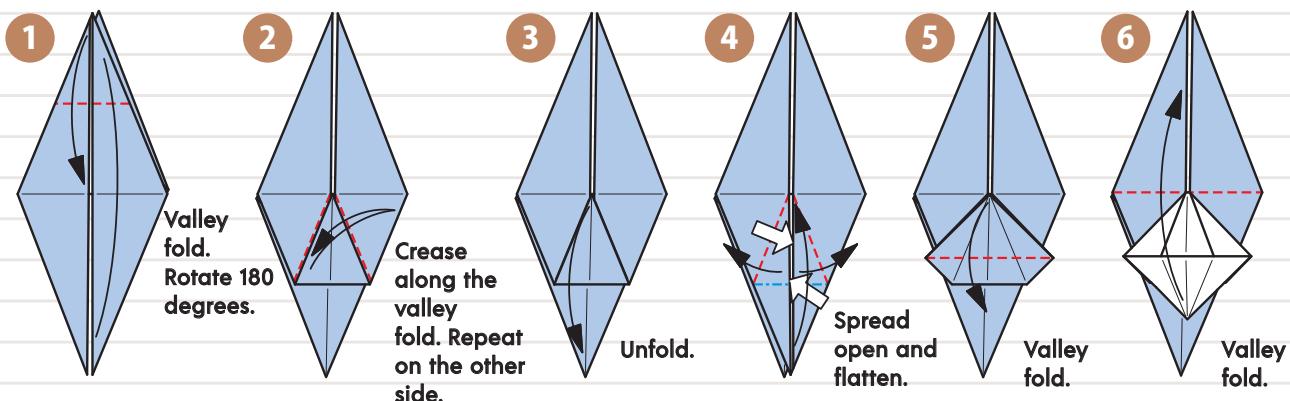
### Tips for folding

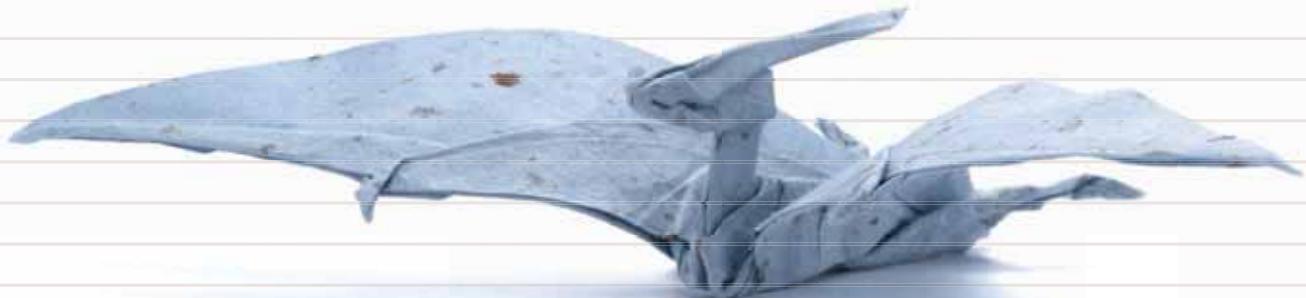
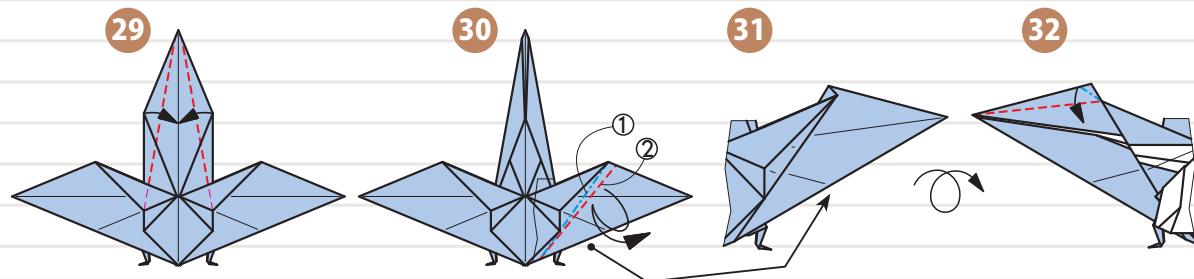
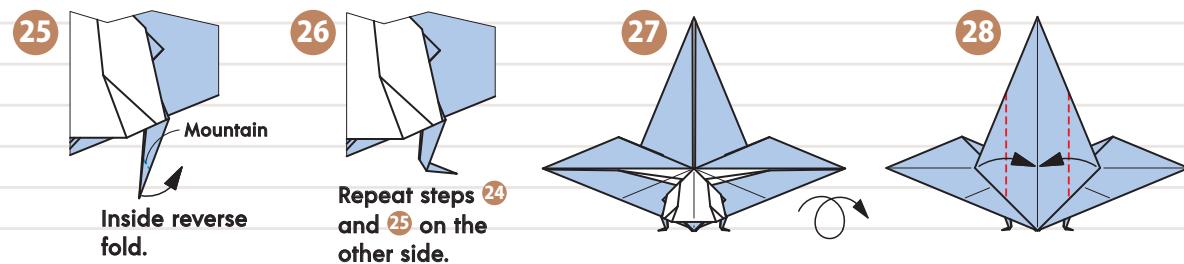
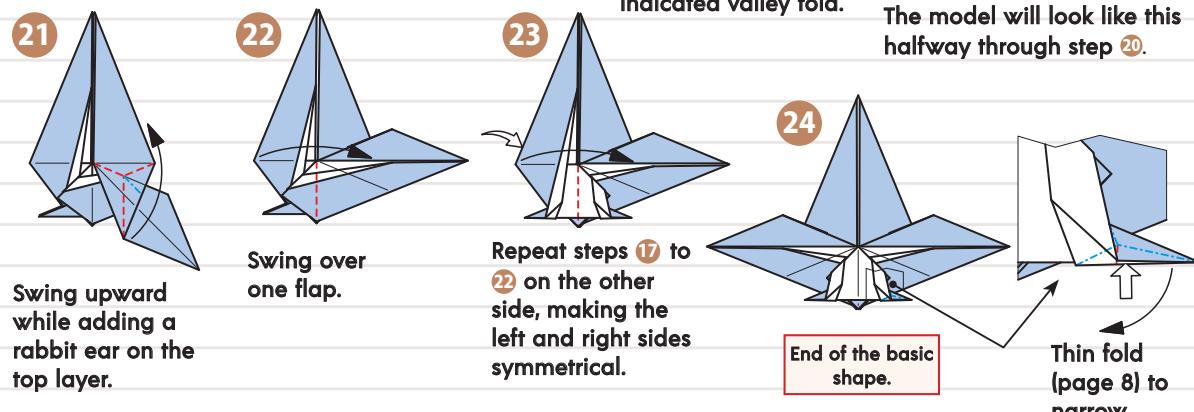
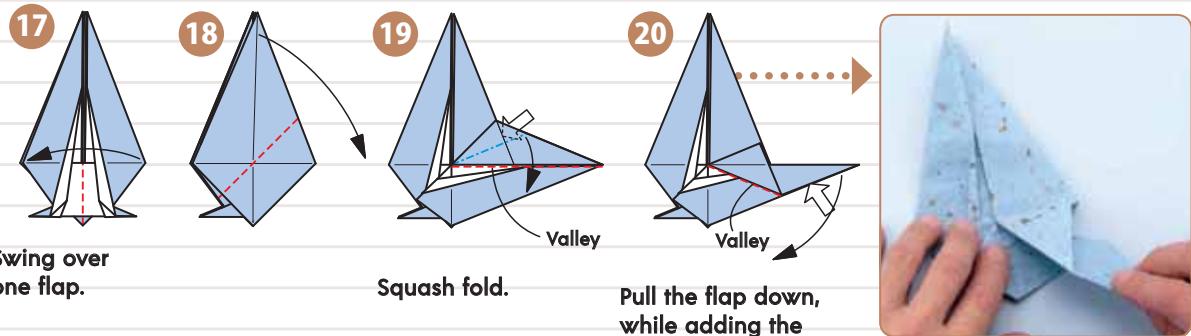
Start by folding the Crane Base (page 10). The procedure in step 20 is tricky to show in a diagram, so look closely at the illustration to avoid making mistakes. The process for making the claws is shown in steps 30–36. For a more realistic look, I recommend keeping the claws short. The most notable characteristic of the Pteranodon's head is the long crest. There is a comparison between a completed Pteranodon model with glue and one made without glue on page 12. The crest is very delicate and a bit difficult to fold correctly, so I encourage you to use glue to preserve your efforts. You can apply glue to the legs after making them skinny in step 15, but because joints are added to the legs starting at step 24, be careful to not apply too much. Adjust the wings to be slightly curved downward like a gull's wings when the finished origami is viewed from the front.

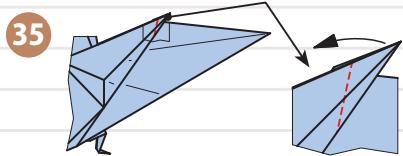
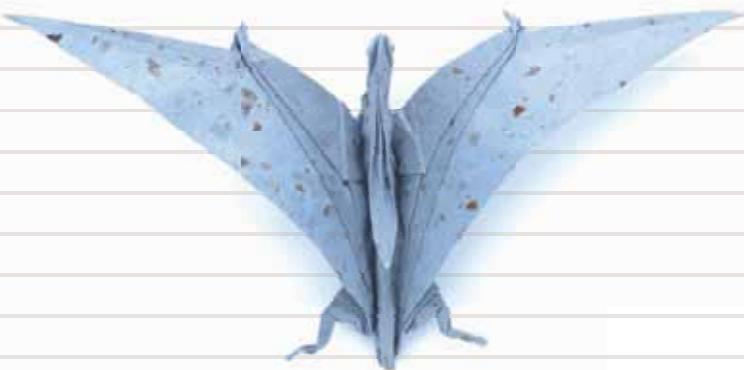
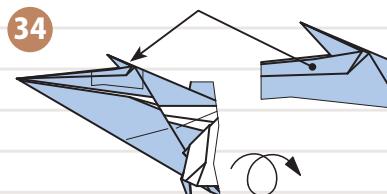
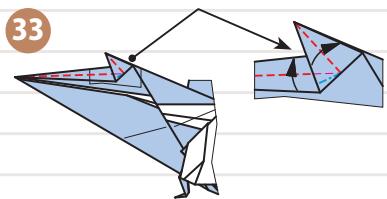
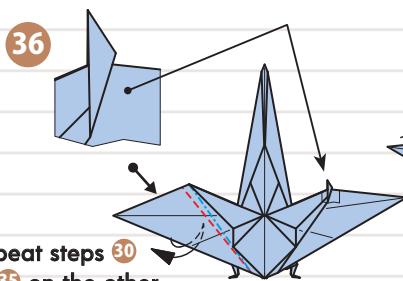
Start from the Crane Base (page 10)



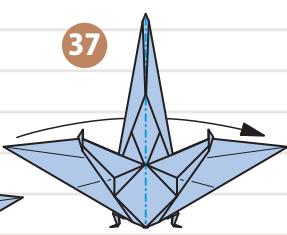
PTERANODON



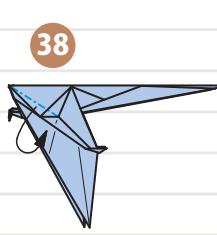


Outside  
reverse fold.

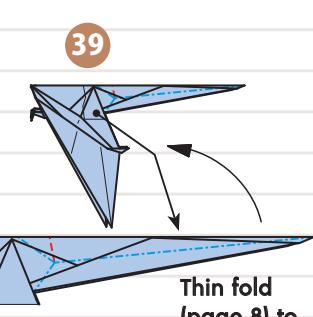
Repeat steps 30 to 35 on the other side, making the left and right sides symmetrical.



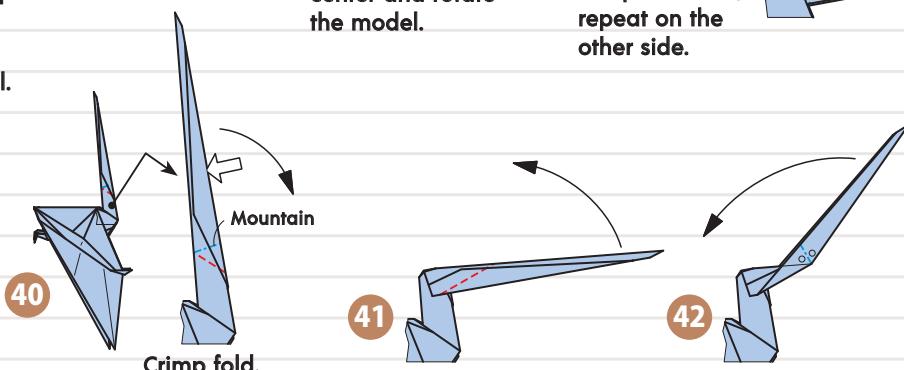
Valley fold along the center and rotate the model.



Mountain fold this part inside, repeat on the other side.



Thin fold (page 8) to narrow.



40

Mountain  
Crimp fold.

41

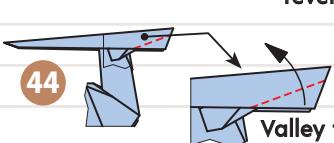
Outside  
reverse fold.

42

Inside reverse  
fold.



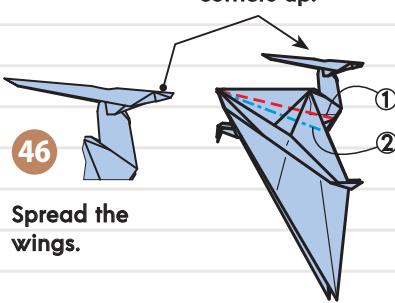
43  
Valley fold the sides down.



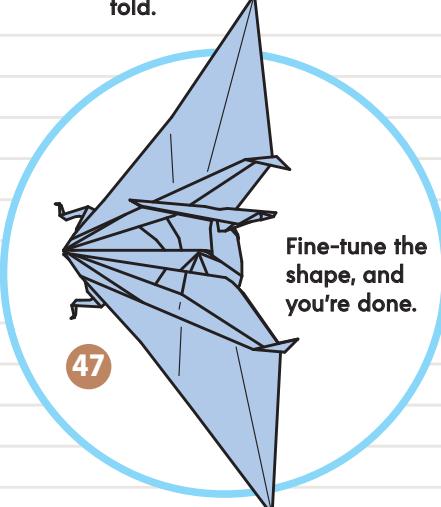
44  
Valley fold the corners up.



45  
Lower the head.



46  
Spread the wings.



Fine-tune the shape, and you're done.

47



► Difficulty Rank: ★★★☆☆

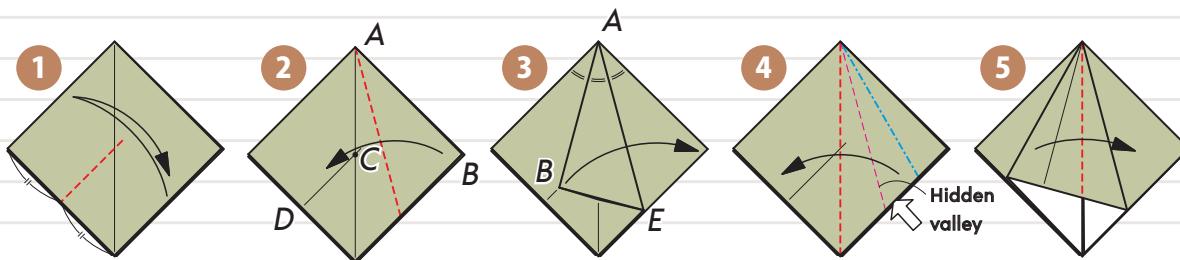
## ARCAEOPTERYX

★ Type of paper:  
Washi (stain dyed sheet)  
12½ x 12½ (31 x 31 cm)  
1 sheet

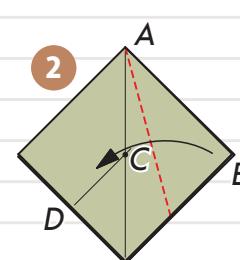


### Tips for folding

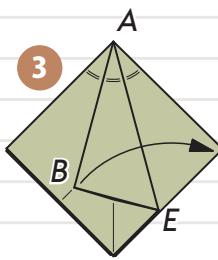
The name for this animal derives from Ancient Greek and means "ancient wing." When folding and shaping the claw (step 26), I recommend that you immediately apply glue. The legs are narrowed by 1/3 in steps 41 and 42. This helps to create the heel fold at the bottom of the legs. The tail is made through the same process used for the Peacock with Train (page 22), thus it will show the back side of the sheet on the upper side. You can choose to use a sheet with the same color on both sides to keep the model monochromatic, or spice things up by using a double-sided sheet. Subtly taper the legs for a more realistic look. To make the beak, pinch the upper part and gently pull the lower part, which will leave the beak slightly open.



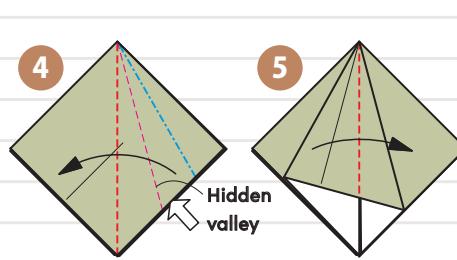
Crease only the upper layer.



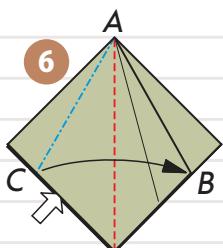
Making A the pivot point, fold B to meet the C-D line.



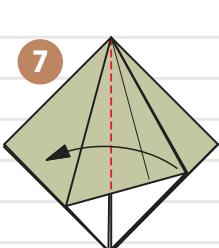
Return to the previous step. The 3 corners are now divided in congruent BAE angles.



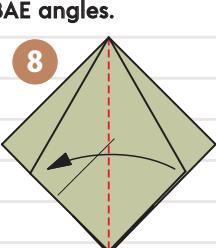
By squash folding as shown, you create a mountain fold.



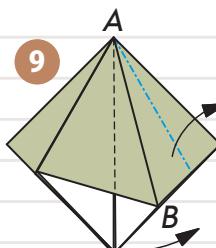
Squash fold where shown. Fold so that the mountain line A-C lines up with A-B, below it.



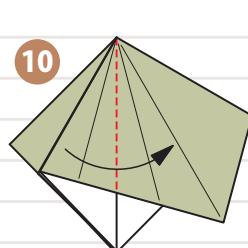
Fold over only one flap.



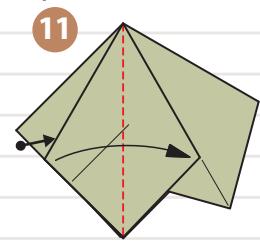
Fold over only one flap.



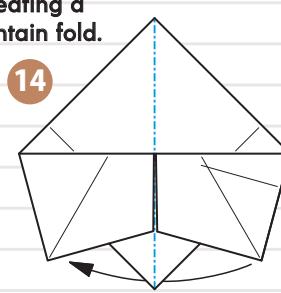
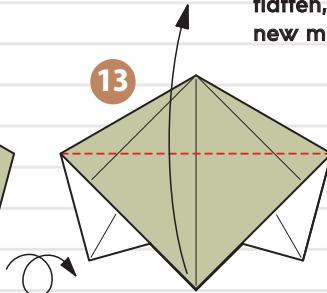
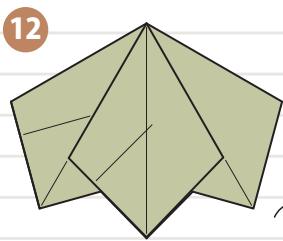
Pull out the side pleat A-B and flatten, creating a new mountain fold.



Fold over only one flap.

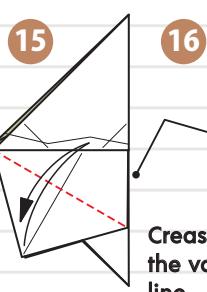


Repeat steps 8 to 10 on the other side, making the left and right sides symmetrical.

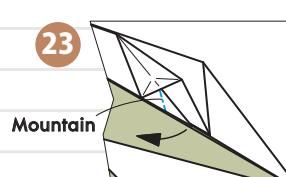
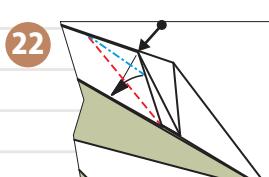
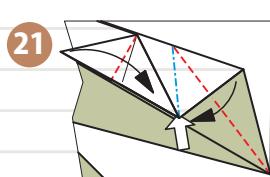
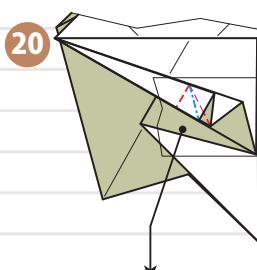
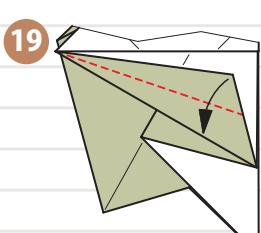
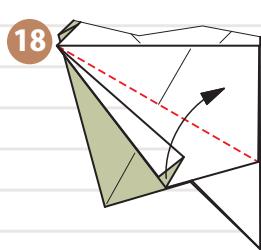
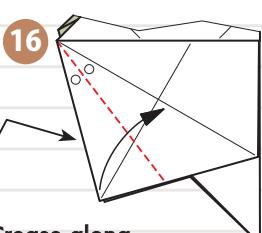
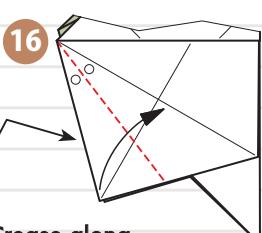


Mountain fold along the center.

End of the basic shape

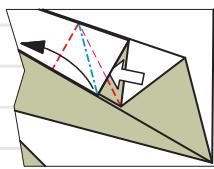


Crease along the valley line.

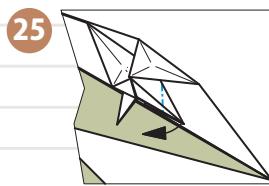
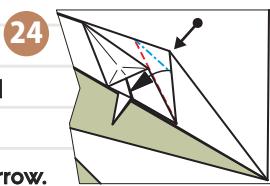


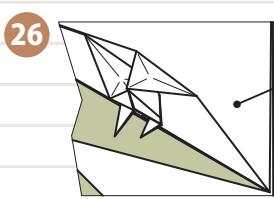
Fold while spread squashing where indicated by the dot-terminated arrow.

Inside reverse fold.

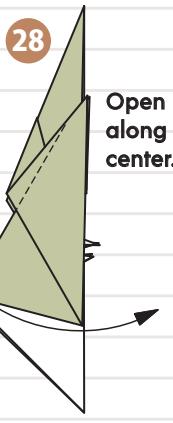
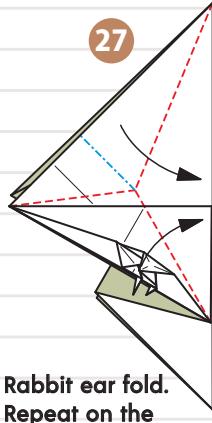
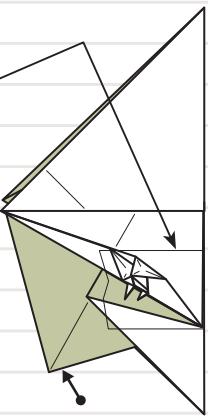


Fold while spread squashing where indicated by the dot-terminated arrow.

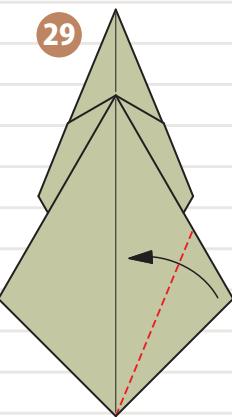




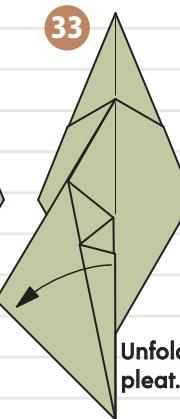
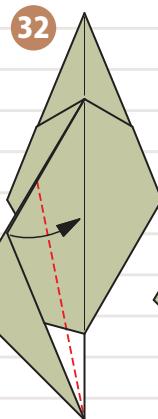
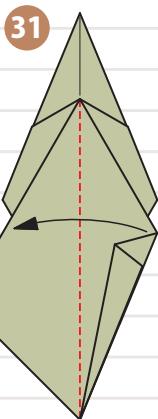
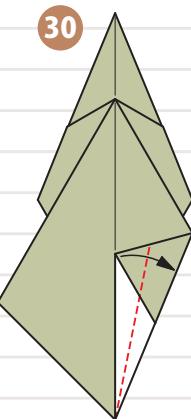
Repeat steps 15 to 25 on the other side.



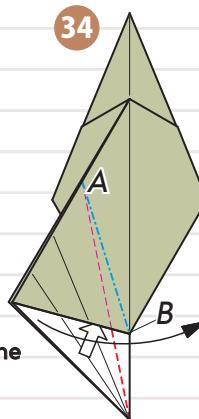
Open out along the center.



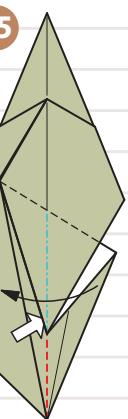
Apply glue (on the inside of the claw parts)



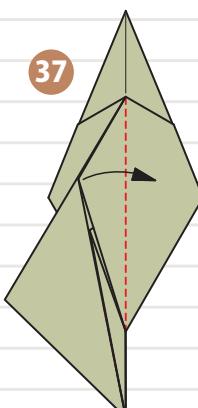
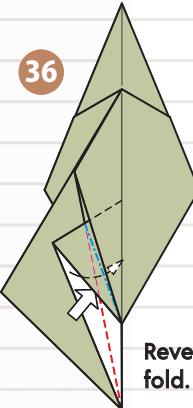
Unfold the pleat.



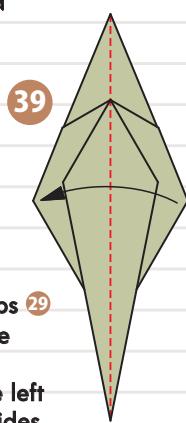
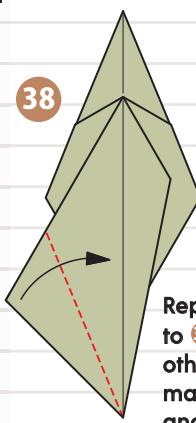
Crease the A-B mountain line, and then reverse fold.



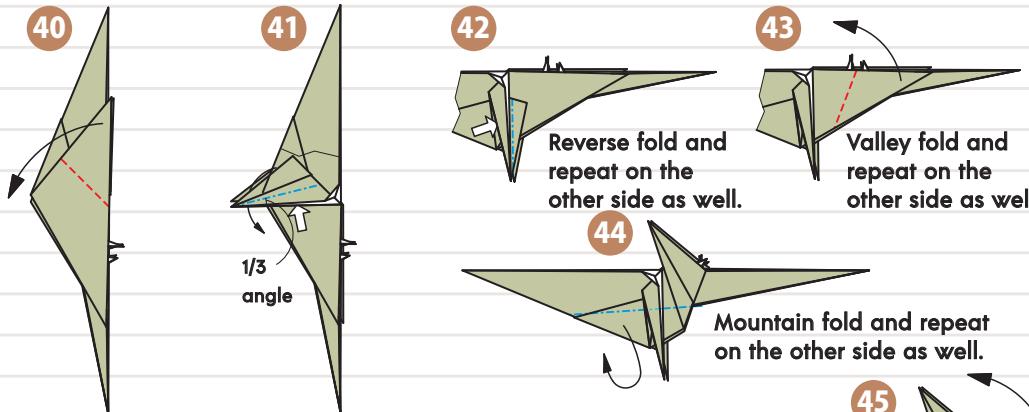
Reverse fold.



Reverse fold.



Repeat steps 29 to 37 on the other side, making the left and right sides symmetrical.



Valley fold toward the corner. A tiny squash fold will form at the right. Repeat on the other side as well.

Reverse fold and repeat on the other side as well. Rotate the model.

44

Reverse fold and repeat on the other side as well.

Valley fold and repeat on the other side as well.

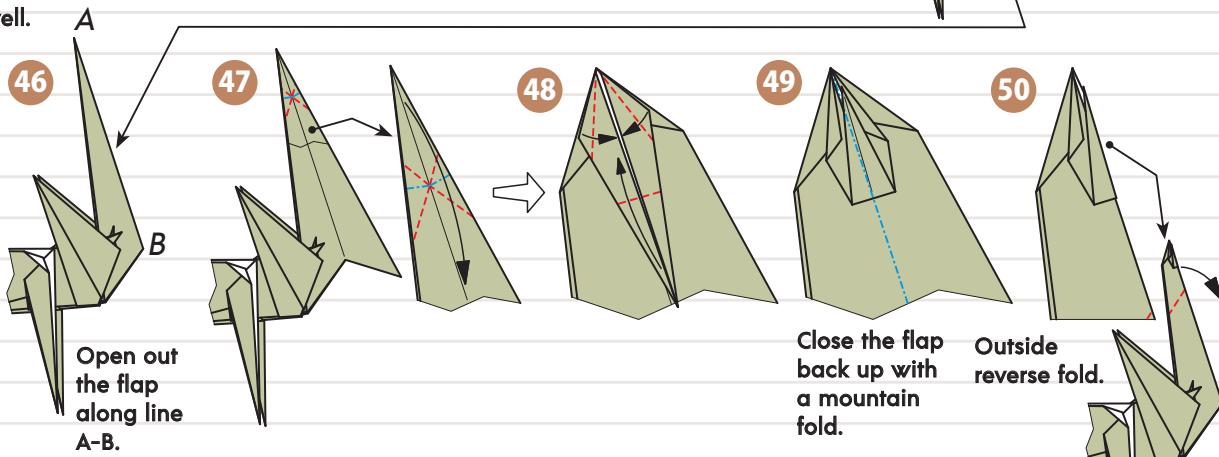
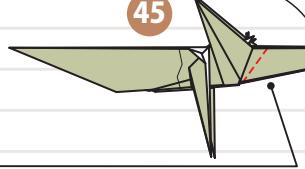
43

Mountain fold and repeat on the other side as well.

44

Mountain fold and repeat on the other side as well.

Outside reverse fold.



A  
Open out the flap along line A-B.  
B

46

47

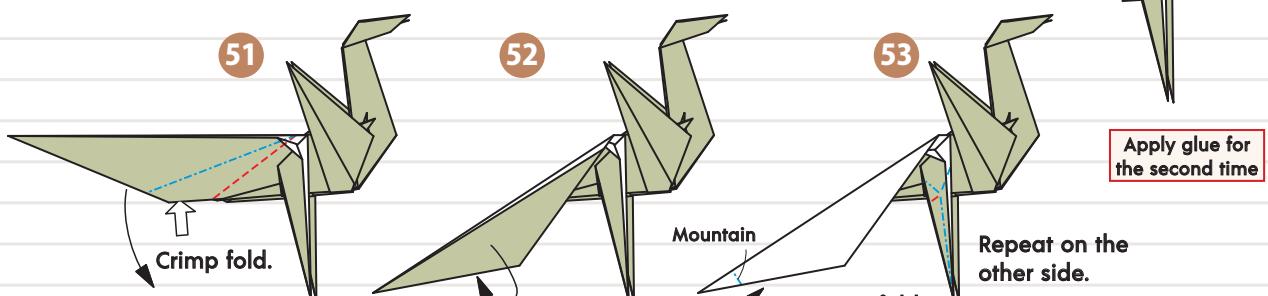
48

49

50

Close the flap back up with a mountain fold.

Outside reverse fold.



Squash.

54

Mountain

Mountain

Mountain fold the legs to narrow them.

Apply glue for the second time

Repeat on the other side.

55



Make a small heel fold. Repeat on the other side as well.

Fine-tune the shape, and you're done.



► Difficulty Rank: ★★★★☆

## CHINESE BIRD-LIZARD

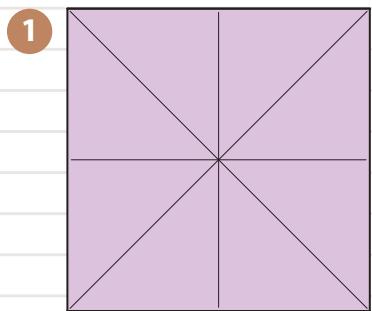
★ Type of paper:  
Washi (dyed pattern)  
12½ x 12½ inch (32 x 32 cm)  
1 sheet



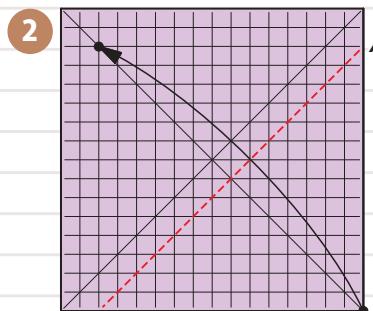
### Tips for folding

Part of the folding process of the 16-part pleat fold (up until step 9) is the same as for the Eagle (page 54). Until you reach the "End of the basic shape" notification, follow the instructions and the illustrations faithfully. For the squashing process in step 19, please refer to the instruction in the Eagle project (page 57, step 31).

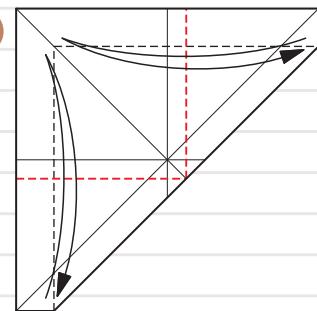
If you carefully apply glue to the talons, the model should be able to stand on its own legs. It's more realistic if you make the talons slightly curved. Although not shown in the illustration, making the end of the tail wider also lends more realism. Don't apply glue to the part that goes inside the wings in step 24, as doing so makes the wings less voluminous.



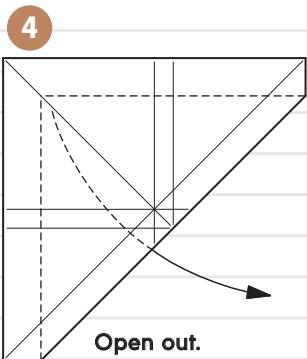
**Begin with a square creased along the diagonals and the sides. Pleat fold into 16 equal parts per side (refer to page 55).**



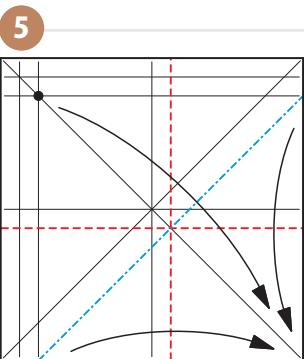
**A is 2 squares away from the sheet's corner. Valley fold over starting from A. Turn the model over.**



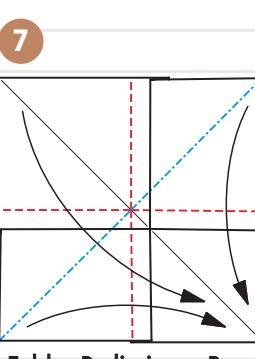
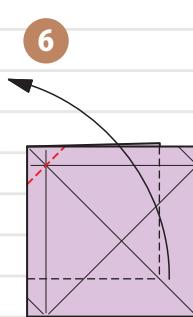
**From here on, the grid is omitted from the diagrams for clarity. Crease along the valley fold lines.**



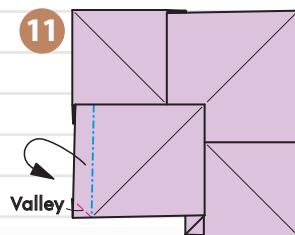
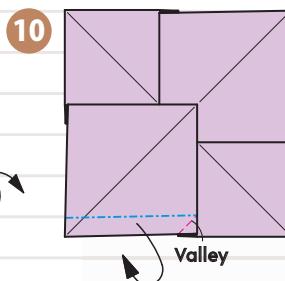
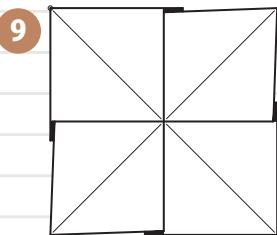
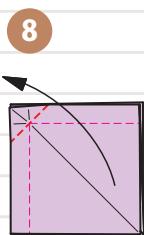
**Open out.**



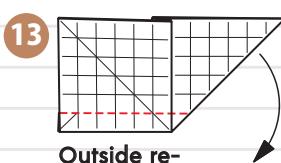
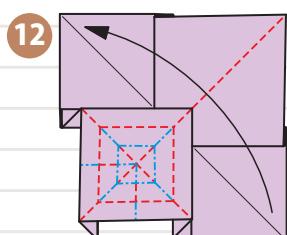
**Fold an offset Preliminary Base (page 10).**



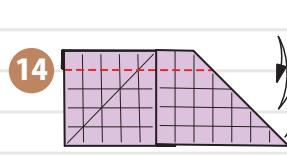
**Fold a Preliminary Base.**



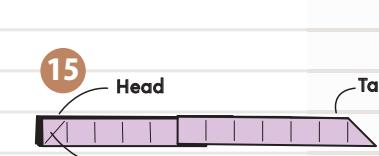
**Valley**



**Outside re-  
verse fold.**

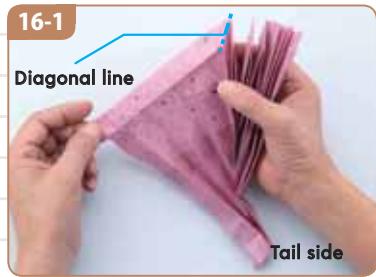


**Outside reverse fold  
4 times.**



**Head**      **Tail**

**Spread here.**



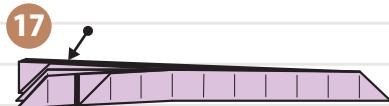
Add a diagonal mountain fold on the first corner and fold.



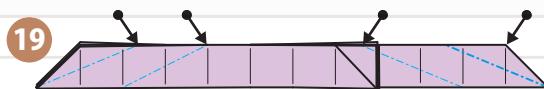
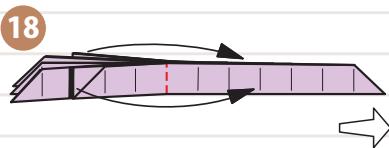
View after the 3 mountain folds have been folded.



After you make the 3 mountain folds, add 3 mountain folds at 45 degrees, and then pull and spread the mountain fold on the outside.



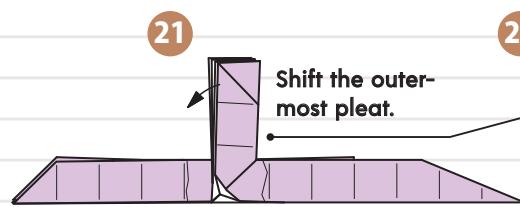
Repeat steps 15 and 16 on the other side.



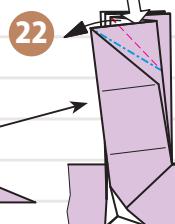
Squash these corners (refer to the Eagle's steps 31 to 33, page 54).



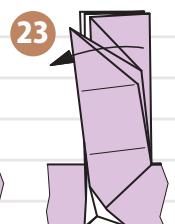
Valley fold up a little beyond the hinge point, allowing a small squash fold to form.



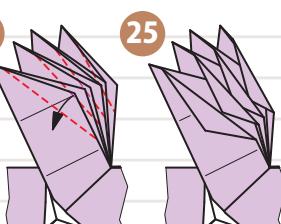
Shift the outermost pleat.



Inside reverse fold.

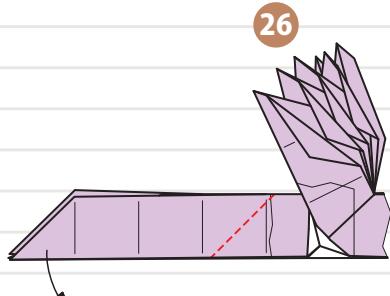


Shift the remaining two pleats and inside reverse fold.

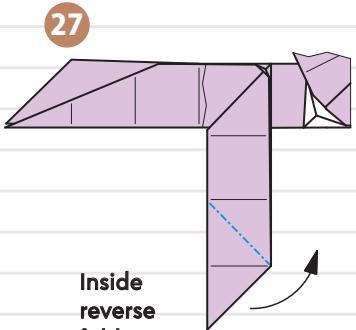


Start applying glue.

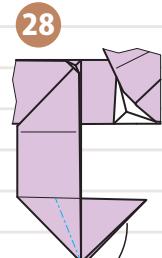
Repeat steps 20 to 24 on the other side.



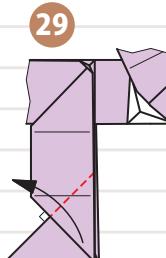
Valley fold down a little past the hinge point, allowing a small squash fold to form.



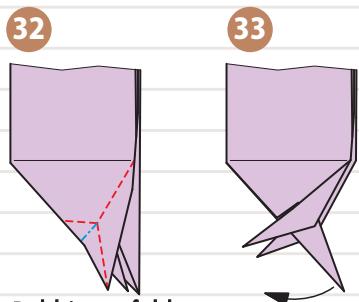
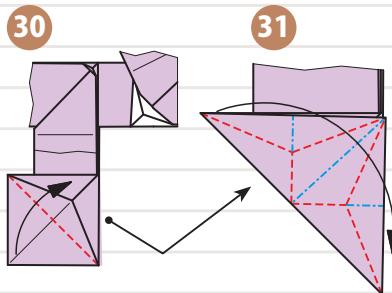
Inside reverse fold.



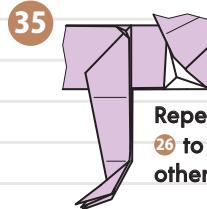
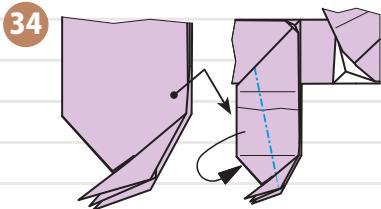
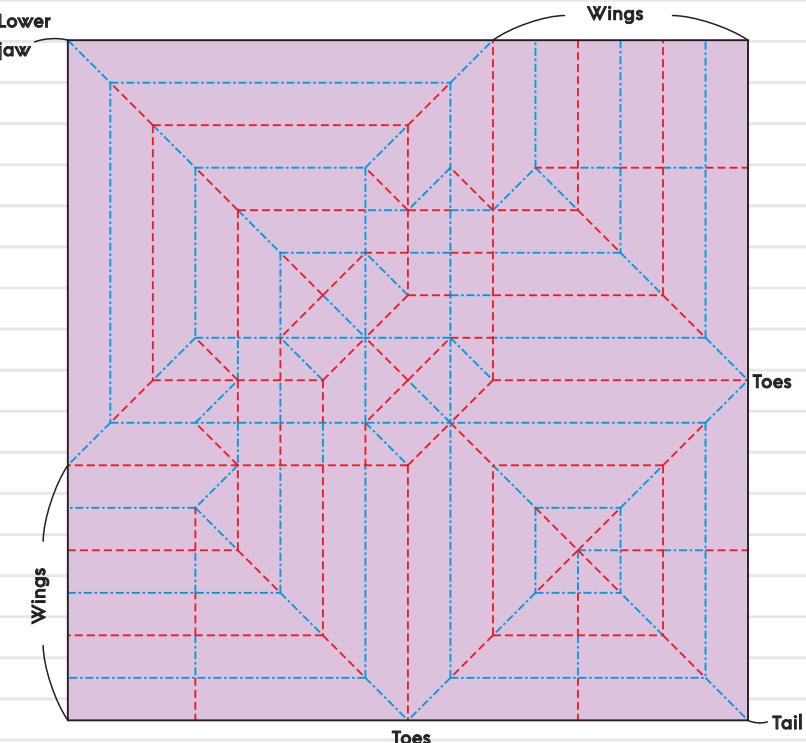
Inside reverse fold.



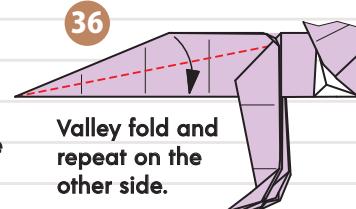
Inside reverse fold.



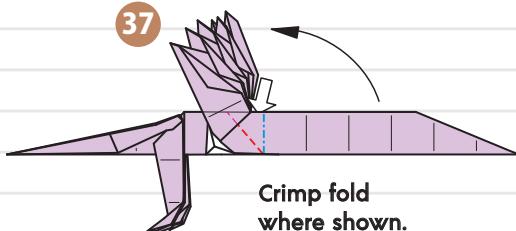
Rabbit ear fold.  
Repeat on the  
other side.



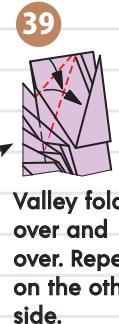
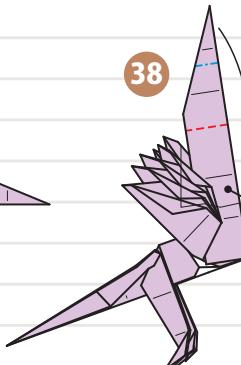
Repeat steps  
⑯ to ⑯ on the  
other side.



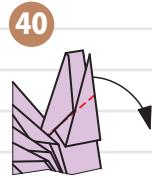
Valley fold and  
repeat on the  
other side.



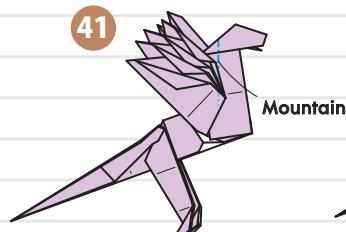
Crimp fold  
where shown.  
Rotate the  
model slightly.



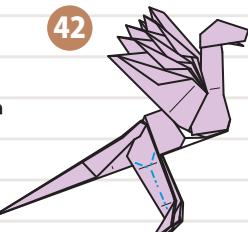
Valley fold  
over and  
over. Repeat  
on the other  
side.



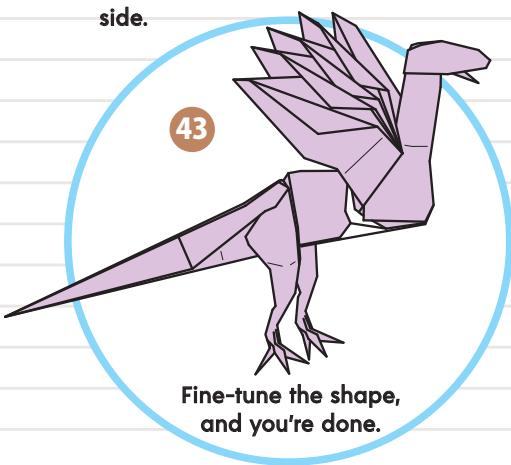
Outside  
reverse fold.



Mountain  
fold the corner  
inside. Repeat on the  
other side.



Open the talons and  
mountain fold the legs  
to narrow them.



Fine-tune the shape,  
and you're done.



► Difficulty: ★★★★☆

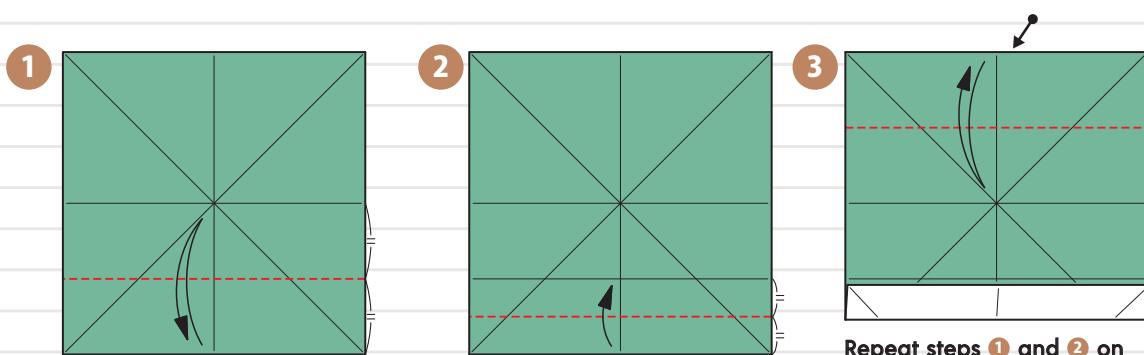
## CHINESE DRAGON

★ Type of paper:  
Washi (stain dyed sheet)  
18 x 18 inch (45 x 45 cm)  
1 sheet

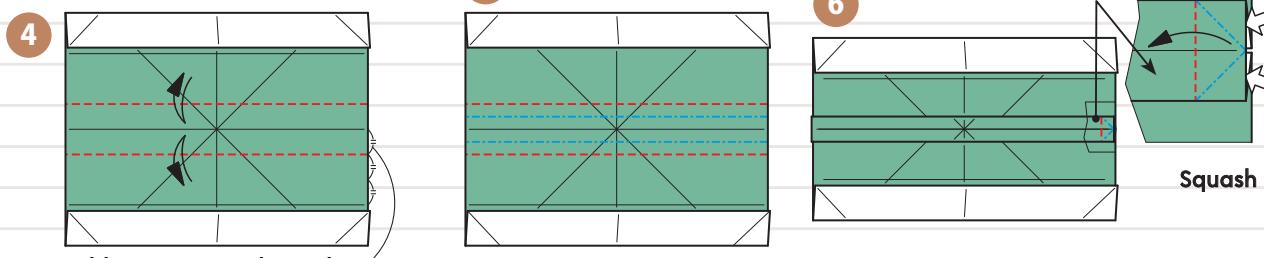


### Tips for folding

You will use preparation folds (page 34) for the claws and the beard. After the preparation folds are completed (step 14), you can apply glue to all of the hidden parts. If you don't apply glue, the paper will be prone to shifting as you work. If you make the beard too large in step 4, the snout will end up looking too stubby when you make the head in steps 31–35, so be careful. (You can also slightly tweak the size of the beard with the fold in step 27.) In step 16, in order to make the diagram easier to read, I show the flaps that will become the legs directed toward the center. However, in the steps that follow, the layers of paper may become thick and difficult to fold. Once you understand the folding sequence, it will be easier for you to simply move the legs outward, so they don't get in the way. To finish, round the length of the body, making the shape more elegant and three-dimensional. In the case of this model, it's not necessary to use a square sheet of paper. You may actually want to use a rectangular sheet to make the body longer.

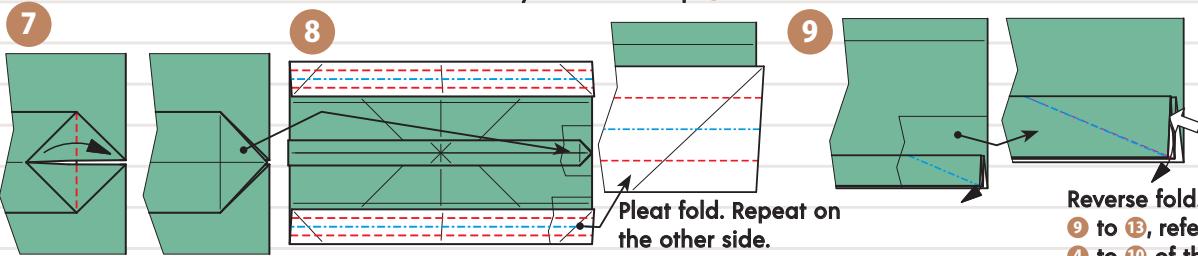
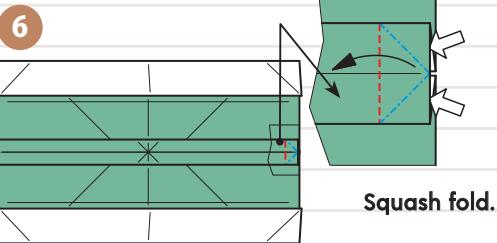


Begin with a square creased along the diagonals and the sides. Crease along the valley fold line.



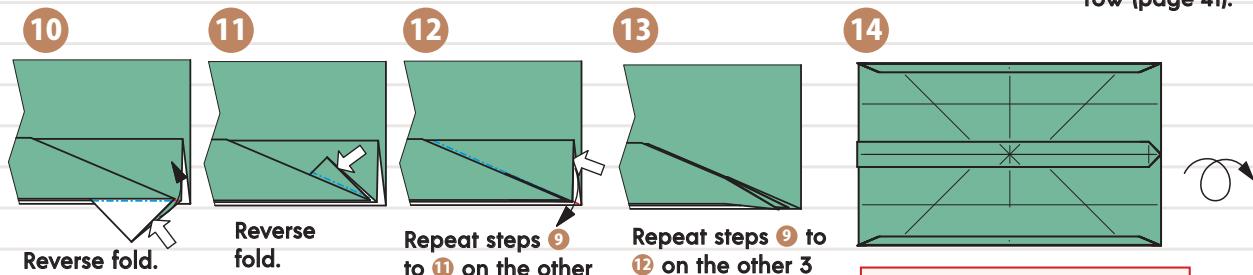
Add a crease at about  $\frac{1}{3}$  of the  $\frac{1}{3}$  side.

Pleat each side using the valley lines from step **4**.



Pleat fold. Repeat on the other side.

Reverse fold. For steps **9** to **13**, refer to steps **4** to **10** of the Sparrow (page 41).



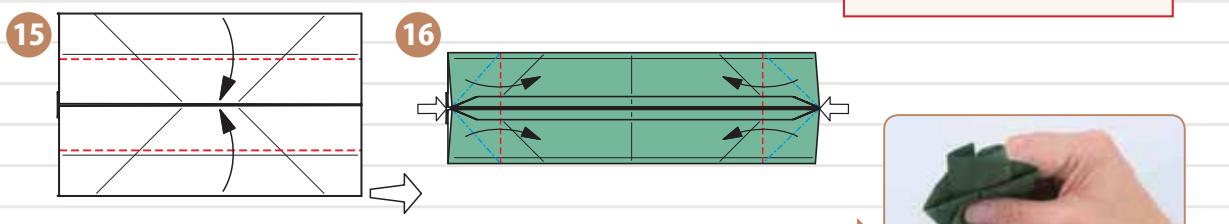
Reverse fold.

Reverse fold.

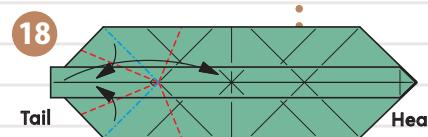
Repeat steps **9** to **11** on the other side.

Repeat steps **9** to **12** on the other 3 corners.

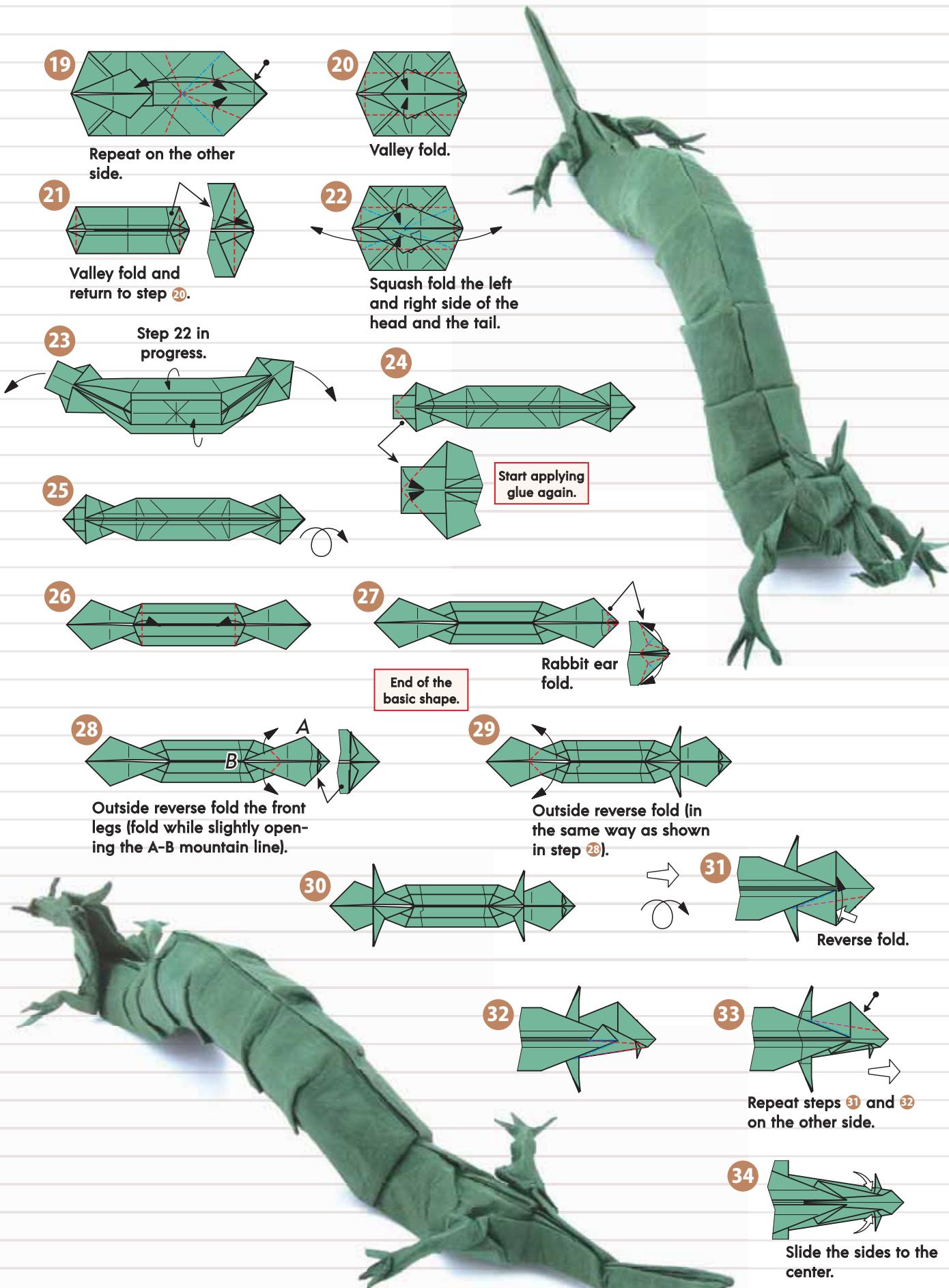
Apply glue for the first time (Except on the back side that is visible).

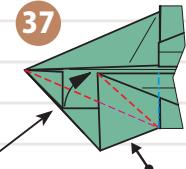
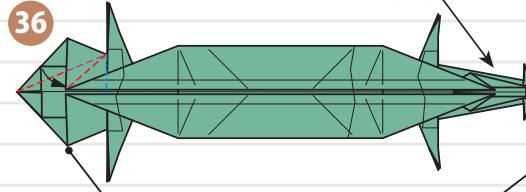
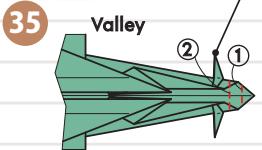
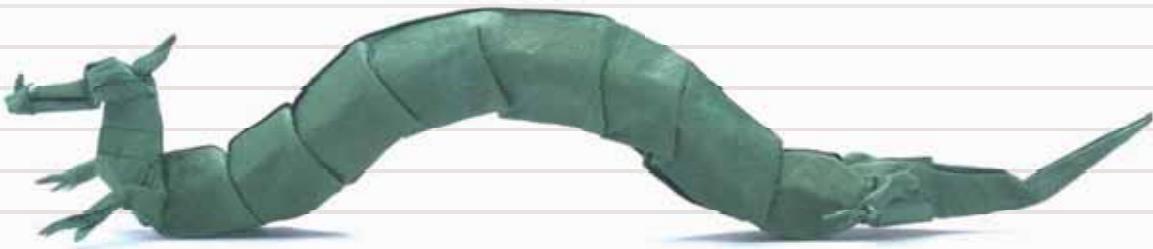


Crease along the valley fold. Repeat on the other 3 sides. Turn over.

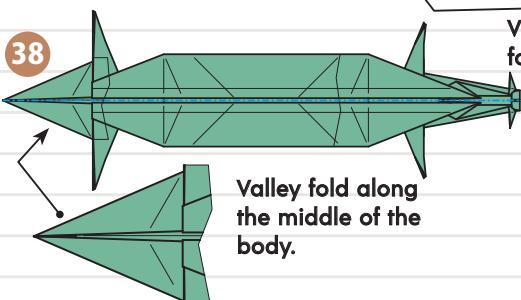


Align the two mountain folds along the center without leaving a gap, and then crease. Then, bring the cluster of flaps over and squash flat.

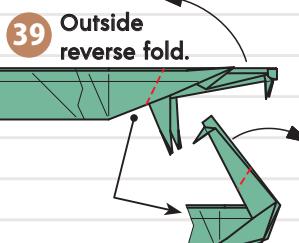




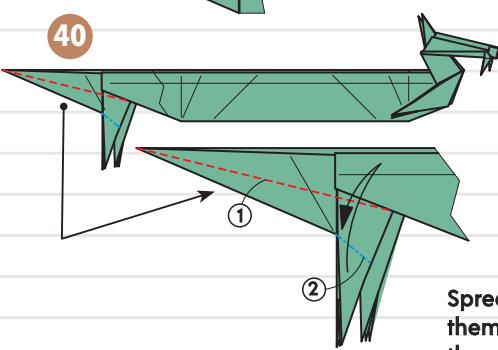
Repeat on the other side.



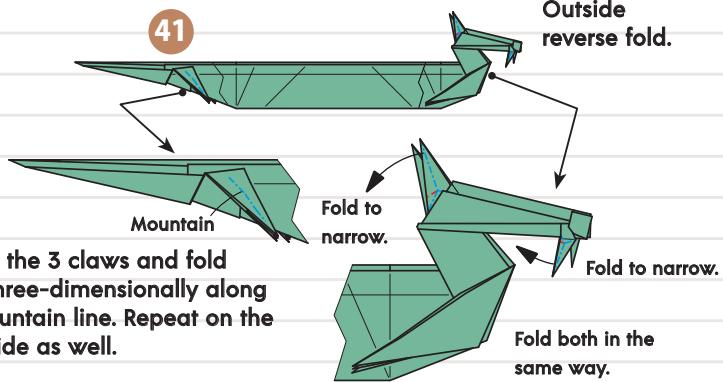
Valley fold while reverse folding the corner inside.



Outside reverse fold.



41



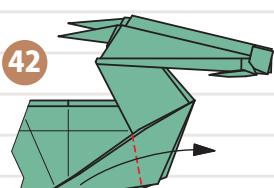
Mountain

Fold to narrow.

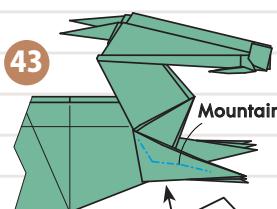
Outside reverse fold.

Fold both in the same way.

Spread the 3 claws and fold them three-dimensionally along the mountain line. Repeat on the other side as well.



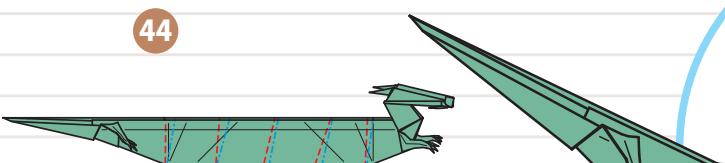
Valley fold.  
Repeat on the other side.



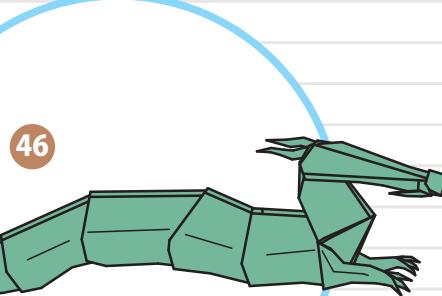
Mountain

Spread the 3 claws and fold them three-dimensionally along the mountain line. Repeat on the other side as well.

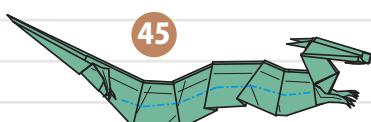
44



46



Fine-tune the shape,  
and you're done.



Three-dimensionally  
crimp fold along the  
length of the body.



► Difficulty Rank: ★★★★★

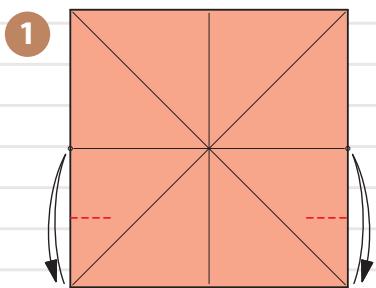
## CHINESE PHOENIX

★ Type of paper:  
Washi (dyed pattern)  
18 x 18 inch (45 x 45 cm)  
1 sheet

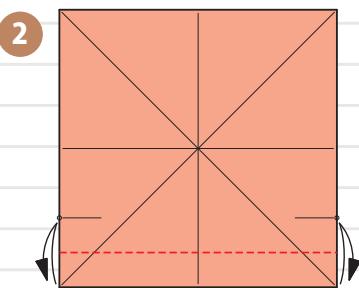


### Tips for folding

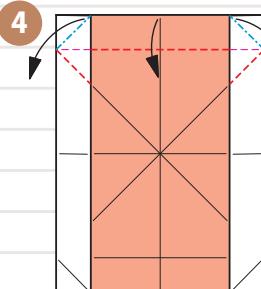
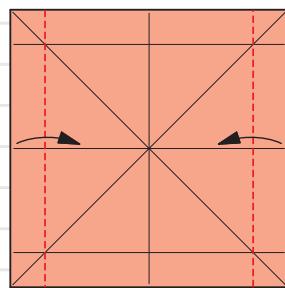
The folding process for this model is long and challenging, but most of it is made of basic folds, so I suggest that you to fold carefully while referring to the instructions and illustrations. The talons are made through "preparation folds" (page 34). Large wings can be folded from the triangular flaps on the back side of the claws. After you're done folding the claws, apply glue inside the creases of the claws so that the model can stand independently on its legs. You will make a double sink fold (page 9) in step 31. This process can be difficult to fold, but it's okay to also just spread the part in step 34 with your hands and fold where shown by the arrows. Precisely install the folds from steps 32 and 33. And closely follow the instructions for refolding in step 44. Once completed, the model looks better if you add multiple creases to the wings and make them curl upward, as shown in the picture.



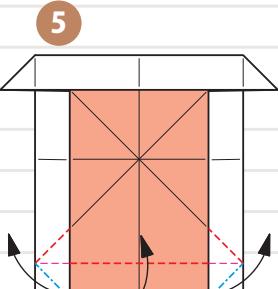
**1**  
Begin with a square creased along the diagonals and the sides. Pinch along the valley fold lines.



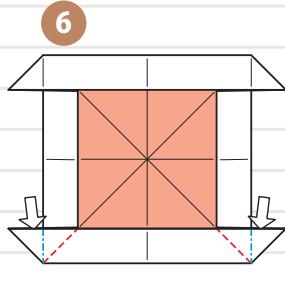
**2**  
Fold and unfold the bottom edge to the pinches from step 1. Repeat on the other 3 sides.



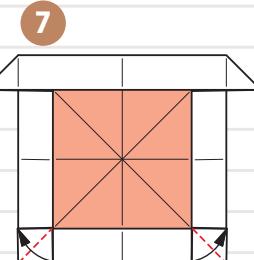
**4**  
Valley fold down while swiveling out the sides.



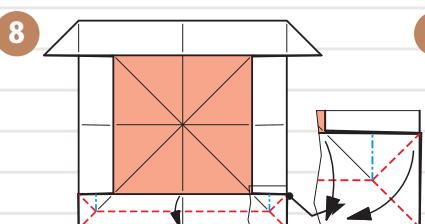
**5**  
Repeat on the bottom part as well.



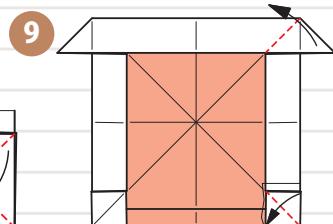
**6**



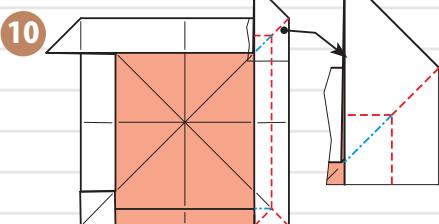
**7**



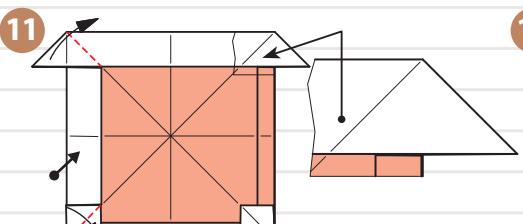
**8**



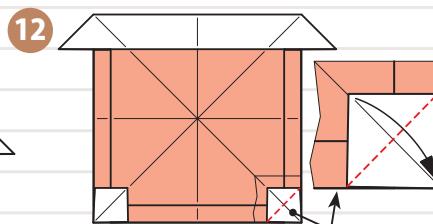
**9**



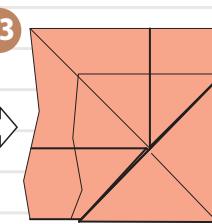
**10**



**11**



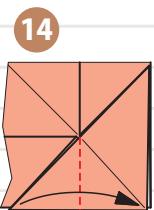
**12**



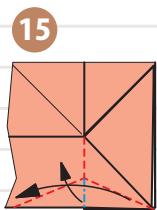
**13**

Repeat steps **9** and **10** on the other side.

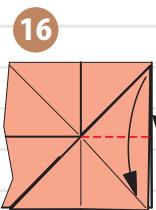
The following steps focus on the outlined area.



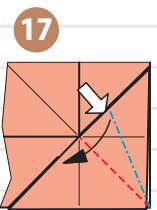
**14**



**15**



**16**



**17**

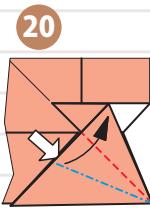


**18**

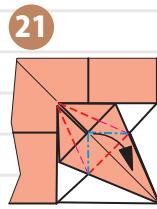


**19**

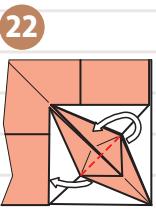
Repeat steps **14** to **15** on the other side.



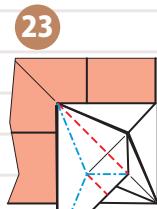
**20**



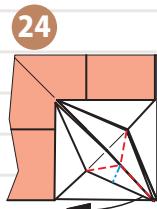
**21**



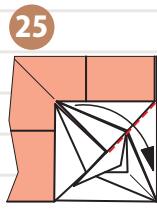
**22**



**23**



**24**



**25**

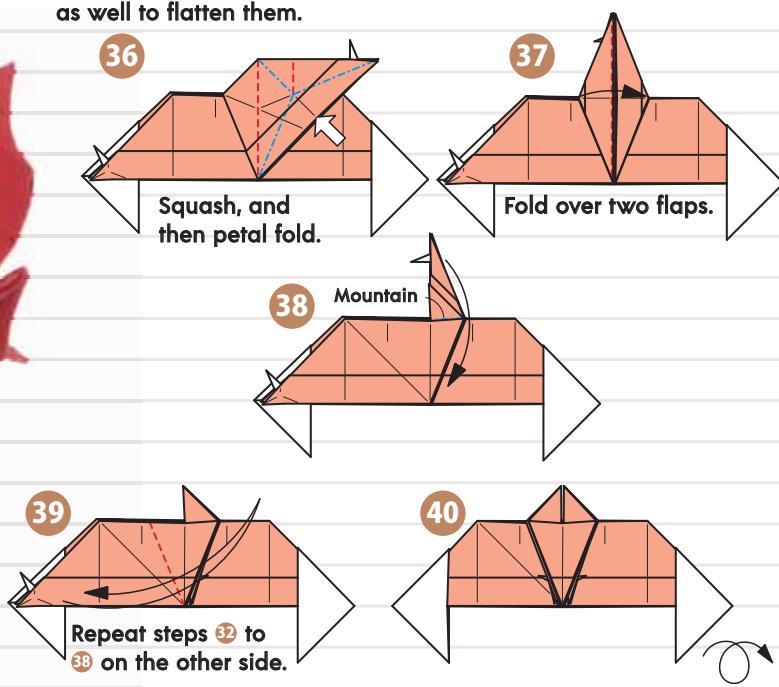
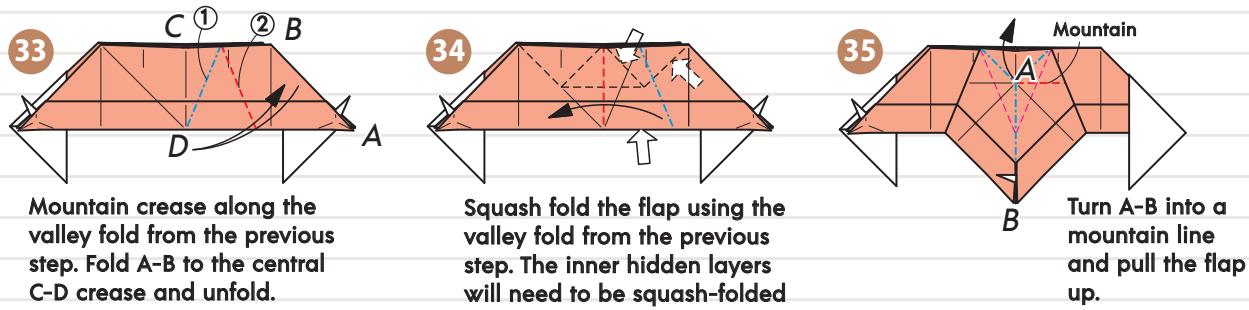
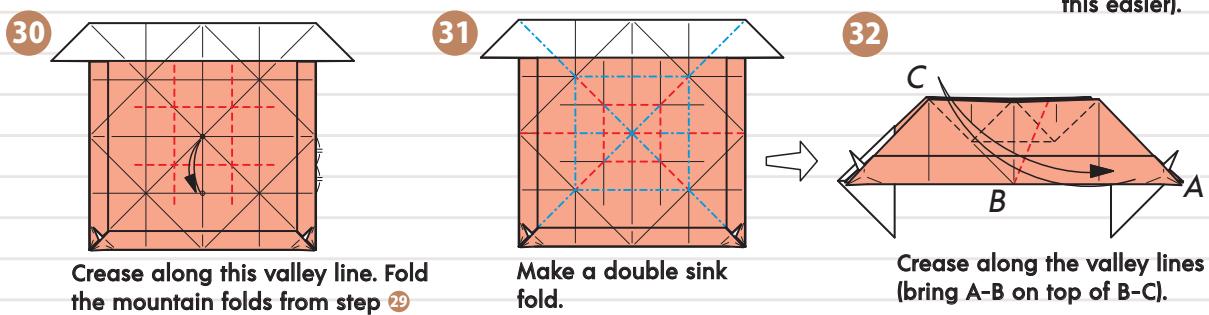
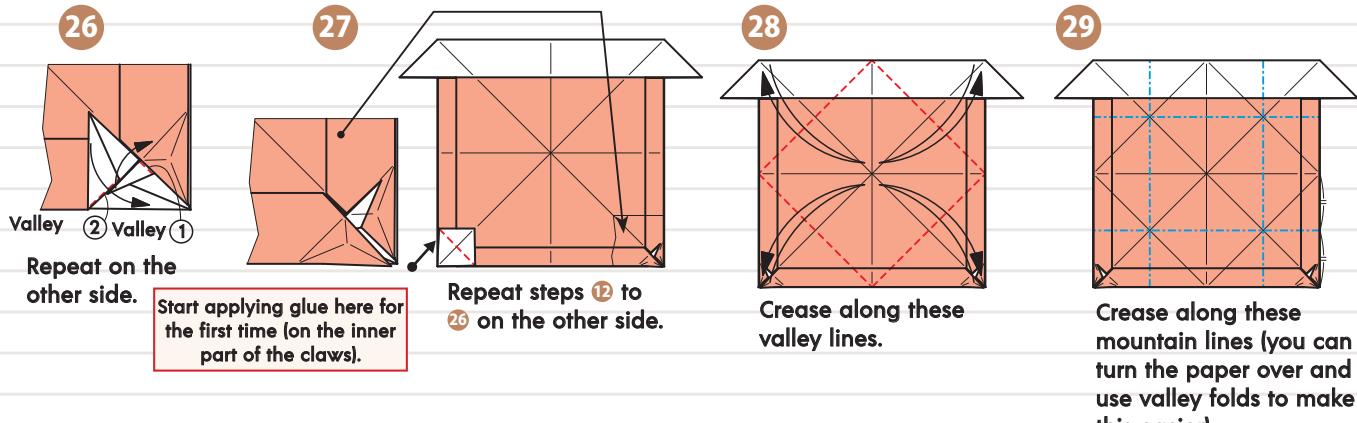
Repeat steps **17** to **19** on the other side.

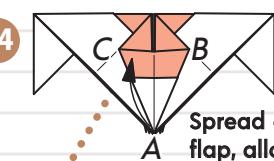
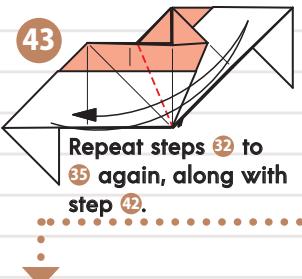
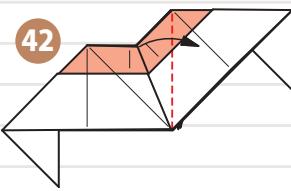
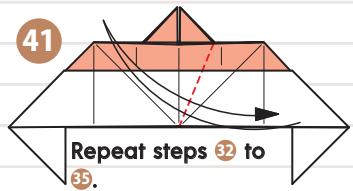
Petal fold (page 10).

Wrap around and reform layers (page 9).

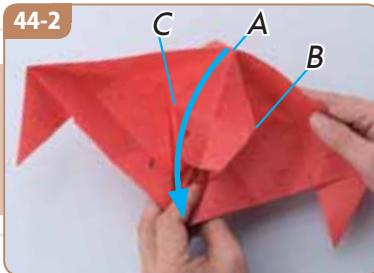
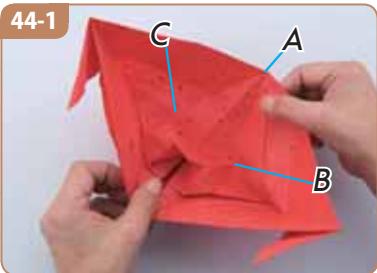
Squash and then petal fold.

Valley fold down, allowing the hidden reverse fold to open out and flatten.





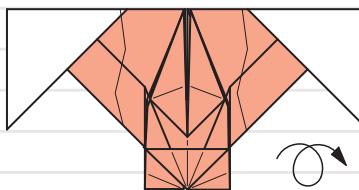
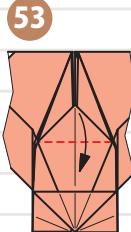
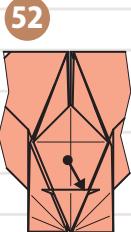
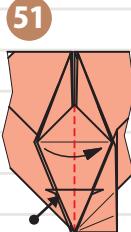
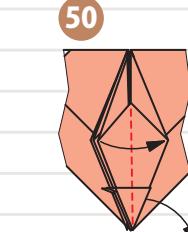
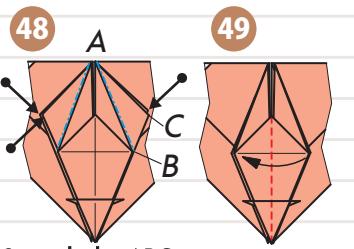
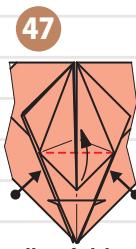
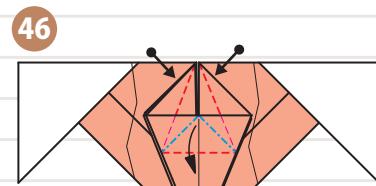
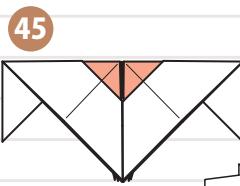
Spread open the top flap, allowing you to invert (sink) the top flaps inside. Flatten the model when sinking is complete.



Focus on the A-B and A-C mountain lines (valley lines if seen from inside) and open them up.

Turn A-B and A-C into mountains and fold back (C-B becomes a valley line).

What it looks like after folding.



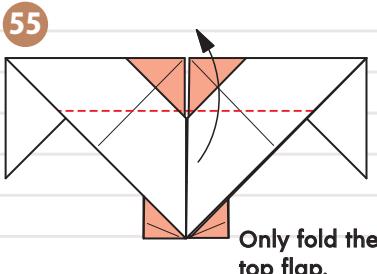
Pull out the trapped layer and swing the 6 flaps back to the position in step 49.

Repeat again on the other side, making the left and right sides symmetrical.

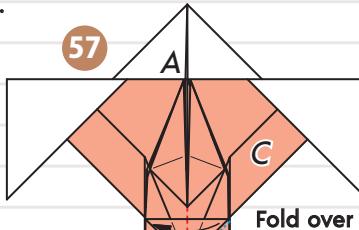
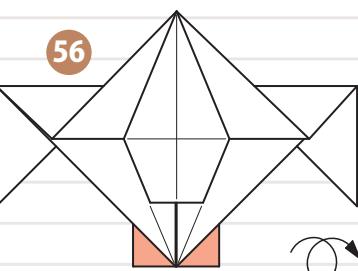
Pull out the trapped layers on the top flap.

Valley fold. Repeat on the other two (hidden) sides.

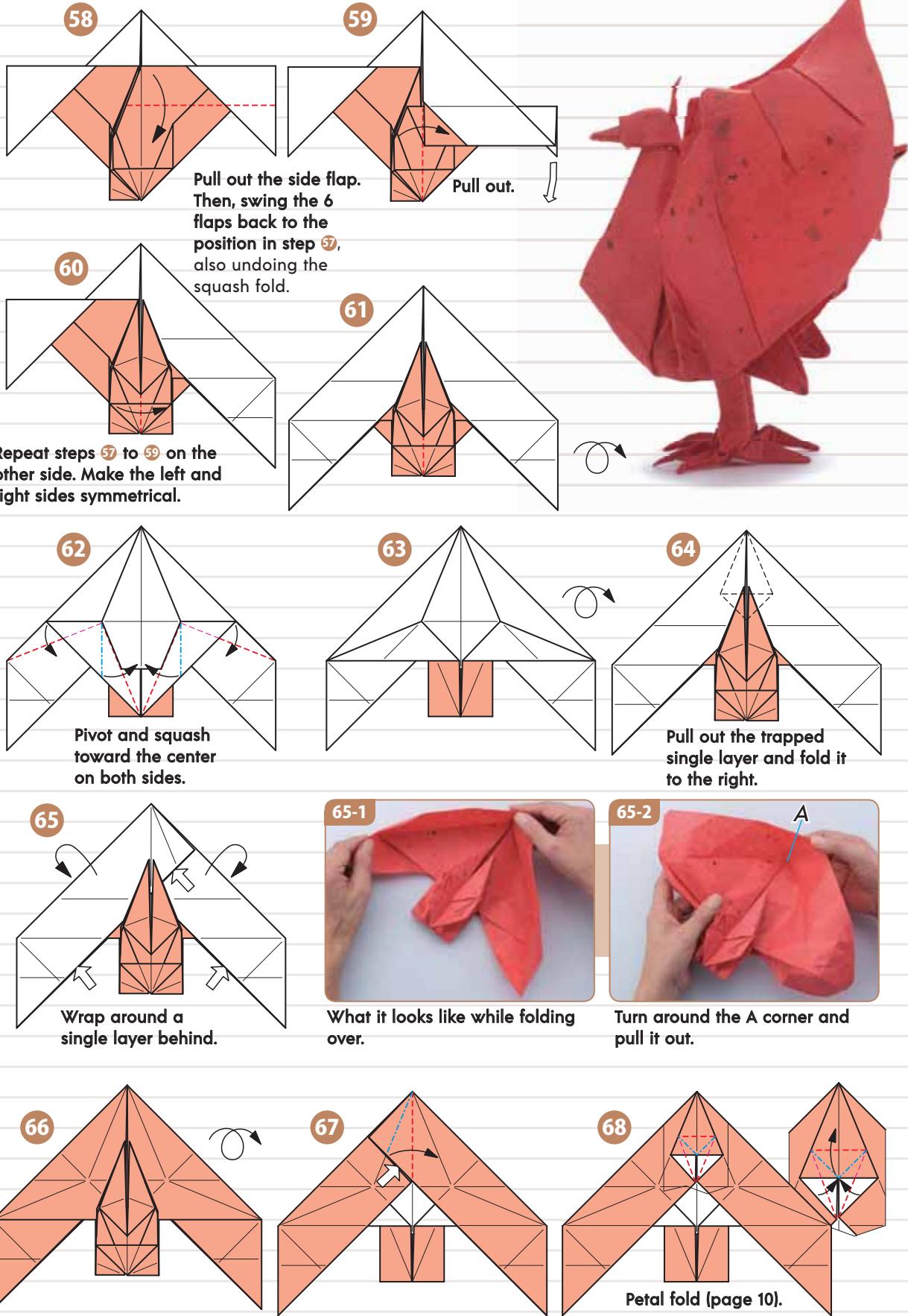
Fold over 6 flaps.

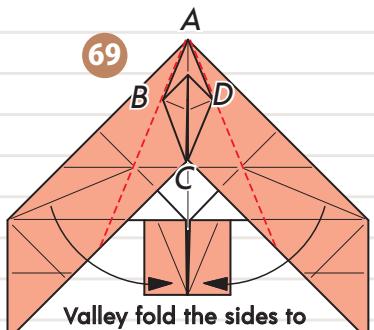


Only fold the top flap.



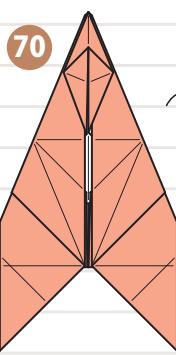
Fold over all the ABC triangles, allowing the bottom corner to squash flat.



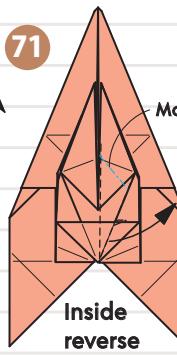


Valley fold the sides to the center, keeping the ABCD rhombus on the surface.

You can start applying glue again.



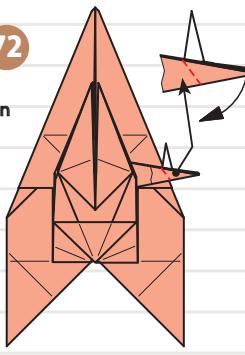
70



71

Mountain

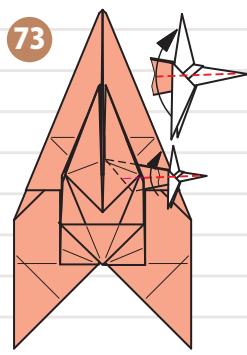
Inside reverse fold.



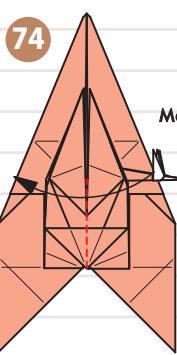
72

Outside reverse fold the two claws.

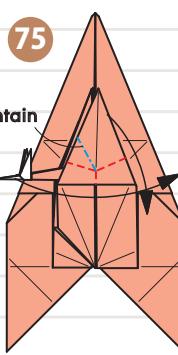
End of the basic shape



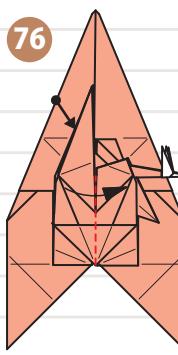
Narrow the claws and the legs. Repeat on the back side as well.



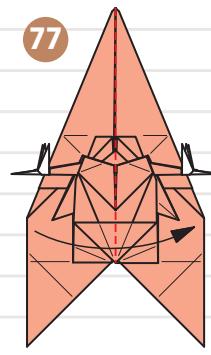
Fold over two flaps.



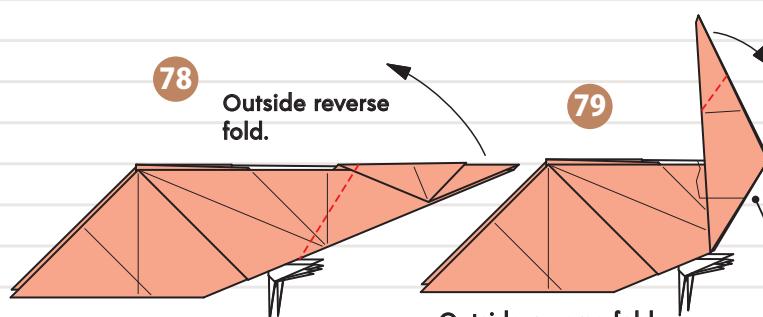
Valley fold along the center while reverse folding down.



Repeat steps 73 to 75 on the other side, making the left and right sides symmetrical.

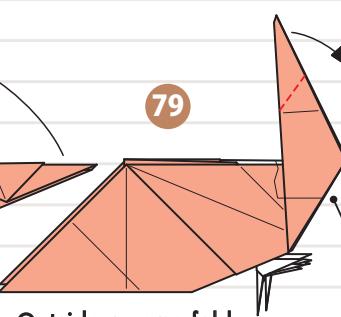


Valley fold in half and rotate the model.



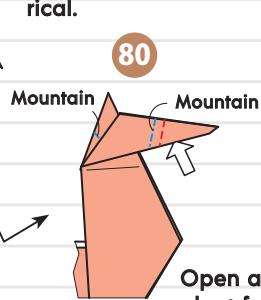
78

Outside reverse fold.



79

Outside reverse fold.



80

Mountain

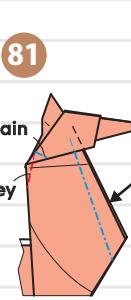
Mountain

Mountain

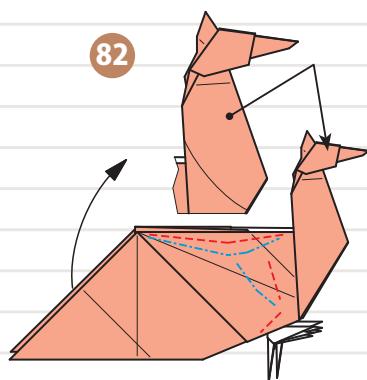
Valley

Squash here.

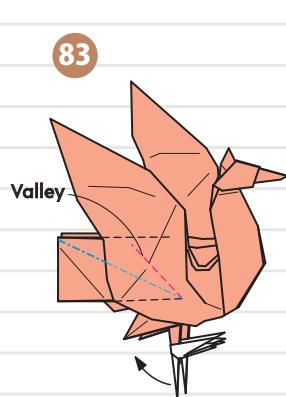
Open and pleat fold.



81



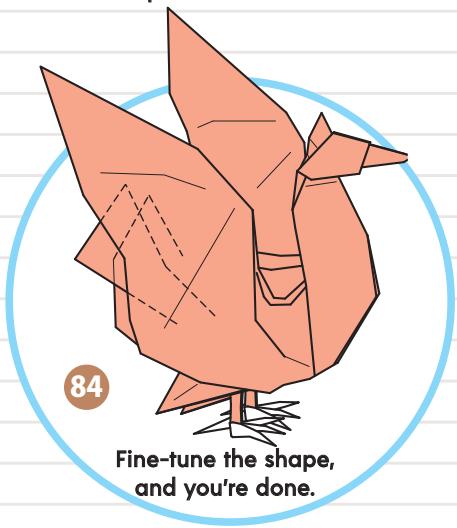
82



83

Valley

Raise the wings. Arrange the shape of the legs and the talons/claws.



84

Fine-tune the shape, and you're done.

Published by Tuttle Publishing, an imprint of Periplus Editions (HK) Ltd.

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English Translation ©2020 Periplus Editions (HK) Ltd  
Translated from Japanese by HL Language Services

ISBN 978-4-8053-1579-8; ISBN: 978-1-4629-2129-4 (ebook)

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**Staff** (original Japanese edition)

**Editing, text design and desktop publishing:** Atelier Jam ([www.a-jam.com](http://www.a-jam.com))

**Editorial cooperation:** Yamamoto Takatori

**Photography:** Maekawa Takehiko

**Cover design:** Sakamoto Hiroyuki / Atelier Jam

Distributed by

*North America, Latin America & Europe*

Tuttle Publishing

364 Innovation Drive

North Clarendon, VT 05759-9436 U.S.A.

Tel: (802) 773-8930 | Fax: (802) 773-6993

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Tuttle Publishing

Yaekari Building, 3rd Floor

5-4-12 Osaki

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### About the Author

Hisao Fukui was born in Shibuya Prefecture, Tokyo in 1951. He started creating origami models in 1971. His creations have been displayed at the Seibu Department store in the Shibuya, the PARCO store in Ikebukuro and other locations in Japan since 1974. He started focusing on new techniques to make more realistic three-dimensional origami some time around 1998. In 2002, he started holding monthly origami lessons at the Origami Center in Ochanomizu, Japan. In August, 2002, the Ochanomizu Origami Center held an origami exhibition of insects and dinosaurs, which would later be featured in the *Nihon Keizai* Newspaper. Hisao formed the Realistic Origami Association in September, 2002. In October, 2008, he received excellent reviews for his exhibition and work at Ebisu Garden Place. Hisao lives in Soka, Saitama where he also has an origami studio.

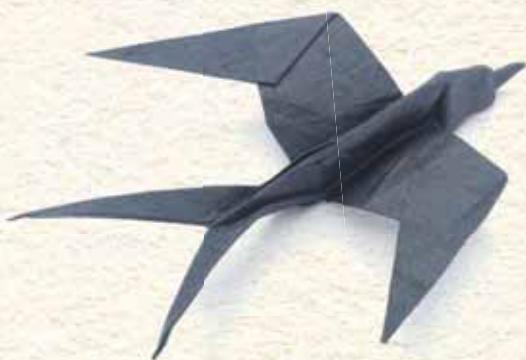
### Ochanomizu Origami Center homepage

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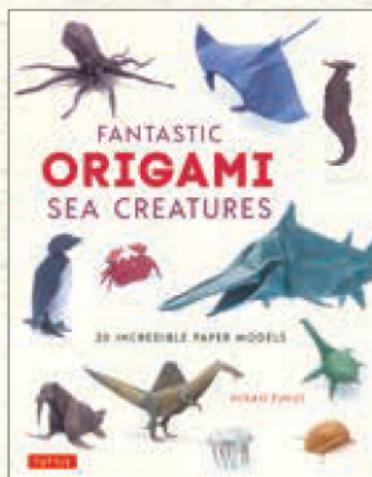




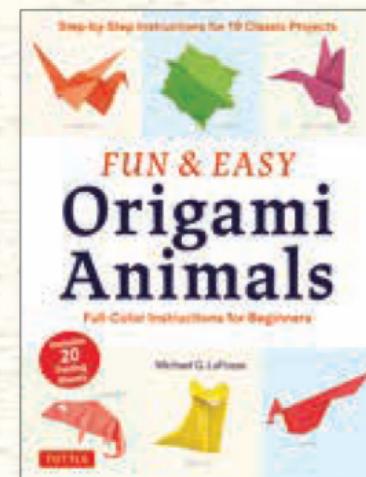


HISAO FUKUI has been folding origami for nearly 50 years, and he's been giving origami lessons in Tokyo for over 15 years. His magnificently realistic animal models capture the quintessential expressive nature of each subject. As a vocal proponent of paper folding in Japan, he's been featured on television and in newspaper articles. Hisao has exhibited his work in galleries and major retail settings in Japan. He is the author of four intermediate-to-super-complex origami instruction books, including Tuttle Publishing's forthcoming *Fantastic Origami Sea Creatures*.

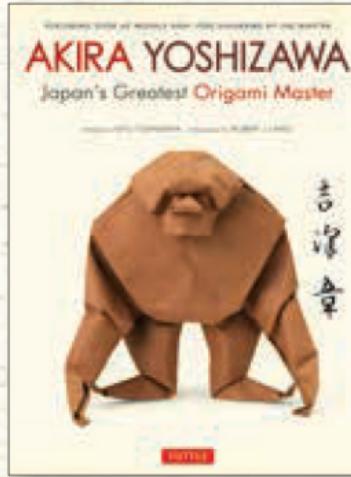
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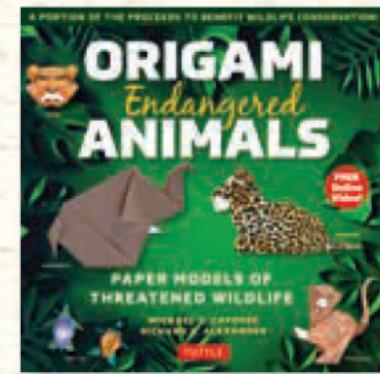
ISBN: 978-4-8053-1578-1



ISBN: 978-0-8048-5191-6



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“Realistic and elegant, Hisao Fukui’s spectacular flying creatures come to life in your hands. This book is a great addition to any origami enthusiast’s library.”

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“Hisao Fukui coaxes an incredible amount of detail from surprisingly straightforward folding sequences.”

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Printed in Hong Kong